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ABSTRACT

Reviewed from an interdisciplinary viewpoint is the available literature on the mental health of Spanish speaking, Spanish surnammed (SSSS) individuals and communities in the United States. It is reported that over 9 million U.S. residents are of Spanish origin, that the SSSS are usually on the lowest rung of the socioeconomic ladder, that the SSSS represent a heterogeneous population (Mexican and Puerto Rican subgroups have important differences), and that differences in duration of residence in the U.S. result in important differences within subgroups. Described is the delivery of mental health services to the SSSS, and identified are normative coping behaviors characteristic of the SSSS. Also discussed are test assessment of personality and intellectual factors and the academic performance of SSSS school children. Other topics considered include the effects of prejudice and discrimination, cooperative and competitive behaviors, and the social and psychological implications of bilingualism. Among conclusions of the analytic review is the paucity of research on the mental health of the SSSS, the need for longitudinal and multidisciplinary research methods, the need for programs emphasizing prevention and rehabilitation, and the need for research which controls significant variables such as socioeconomic status. (DB)

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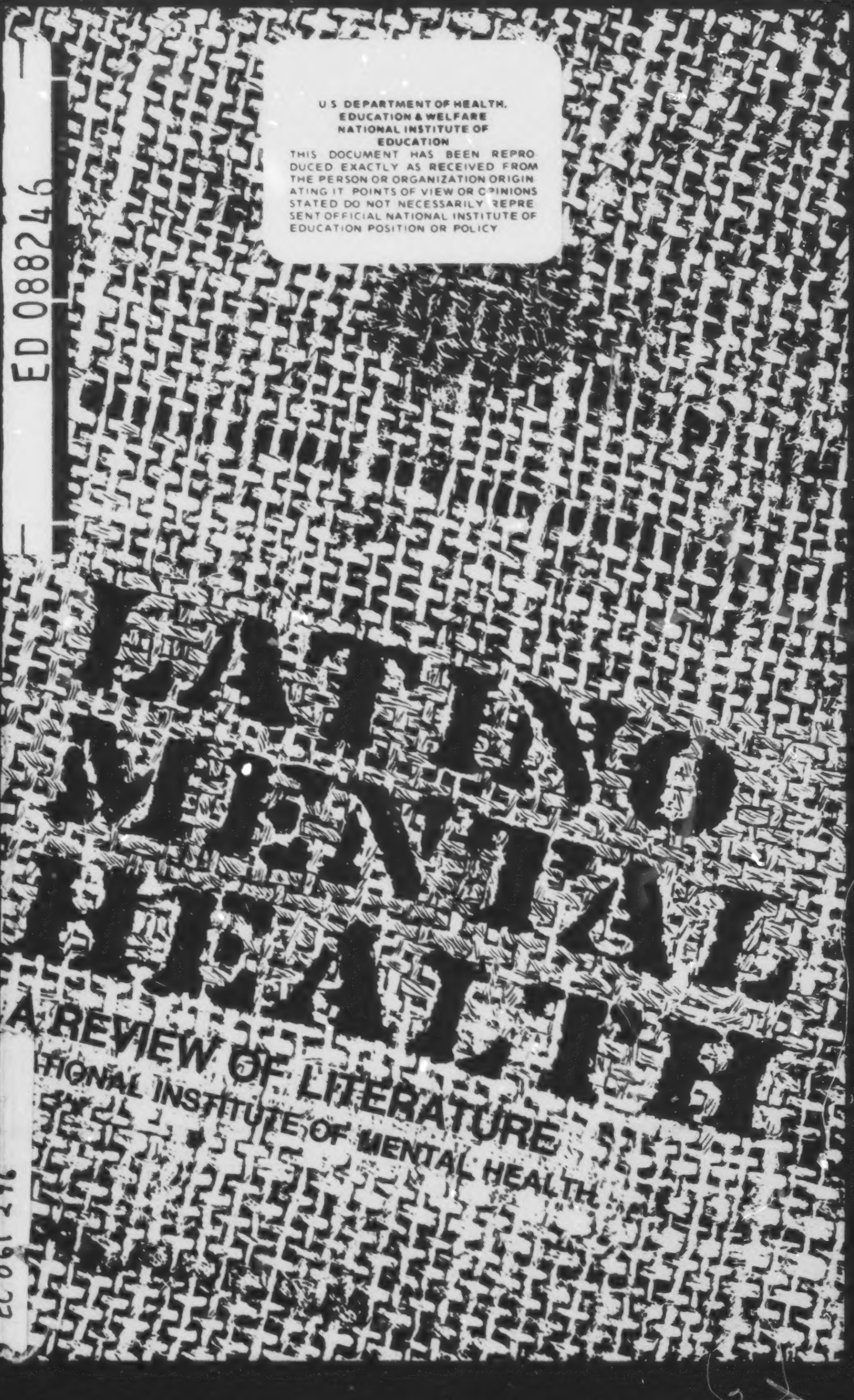

LATINO MENTAL HEALTH

A REVIEW OF LITERATURE

ATIONAL INSTITUTE OF MENTAL HEALTH

ED 088246

LATINO MENTAL HEALTH

A REVIEW OF LITERATURE

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FOREWORD

This publication is the first in a series of reviews of the professional literature relating to the minority groups served by the Center for Minority Group Mental Health Programs, National Institute of Mental Health.

The need to document source material extant on minority groups is an outgrowth of a progression of events that developed after the Center was created in November 1970. The Center serves as a focal point for all activities within the Institute which bear directly on meeting the health needs of minority groups, including programs of research, training, services, and demonstration projects. To meet this responsibility Center Chief James R. Ralph, M.D., moved to establish baseline references on available information not yet in an organized state.

The material in this publication covers the mental health aspect of Spanish-speaking individuals in the country from a broad interdisciplinary viewpoint. The work was done by highly qualified professionals knowledgeable about the special mental health needs and the sociocultural and linguistic problems of the Spanish-speaking population. Together with its companion volume—a complete bibliography with abstracts—this review will serve as a valuable resource for students, educators, investigators, and professionals desiring to undertake serious study of these major minority groups. The outcome should be more enlightened research with a renewed perspective on the whole area of mental health and the need to rework our centrist model.

Bertram S. Brown, M.D.
Director
NIMH

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We are also indebted to the many Latino scholars who graciously accepted the task of reading and commenting on various portions of the monograph. In this connection, we want to thank especially Paul Aranda, Teresa Boulette, Edward Casavantes, Raquel E. Cohen, Manuel Ramirez III, Donald Reyes, Julius Rivera, John Romo, Pedro Ruiz, Pedro Saavedra, Milton N. Silva, and Daniel Trujillo.

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INTRODUCTION

In the summer of 1971, Latinos from the various mental health disciplines met informally in Washington, D.C., to discuss the mental health needs of the various Spanish speaking, Spanish surnamed (SSSS) communities. At that meeting, and at numerous meetings since, it was clear that a systematic literature search and review was necessary in order to assess the state of knowledge of mental health among the Latino population. This review of literature is a result of that first meeting. It is intended to serve three purposes:

- To assess accurately the state of knowledge concerning mental health problems of the SSSS;
- To identify problems requiring additional research or social change programs; and,
- To recommend ameliorative programs based on experimental data rather than subjective impression or speculation.

The literature search upon which this review is based was concerned primarily with the identification of articles, chapters in books, and books that dealt in one way or the other with the mental health of the SSSS. The literature search yielded almost 500 publications with dates of publication beginning in 1923. Annotations of these publications can be found in an accompanying volume to this review.

Throughout this review, terminology used by the numerous authors to refer to the various SSSS subgroups has been preserved. That is, if the author of an article refers to his subject population as "Mexican," "Mexican American," "Puerto Rican," "Hispano," "Latin American," or "Spanish American" that term is retained in the review. Preserving original terms communicates more fully nuances intended by authors. It should be noted that with several exceptions the literature cited in this review is restricted to articles written about the two major SSSS subgroups — Mexican Americans and Puerto Ricans. It appears that mental health researchers are either unaware of or uninterested in the other Latino subgroups residing in the United States.

Articles are organized on the basis of mutual similarity into chapters dealing with a common theme. Chapter titles describe as accurately as possible the material included. Thus, chapter 2, "Mental Health Perspectives," describes material dealing with the delivery of mental health services to the SSSS. Chapter 3, "Normative Behavior," identifies coping behaviors characteristic of the SSSS. Chapters 4 and 5 review personality and intellectual test assessment. Chapter 6 delves into the academic performance of SSSS school children. The effects of prejudice and discrimination are discussed in chapter 7. Cooperative and competitive behavior among children is the subject of discussion in chapter 8. The social and psychological implications of bilingualism are covered in chapter 9.

Who are the Persons of Spanish Origin?

Recent reports published by the U.S. Bureau of the Census (1969, 1971) summarize a wealth of demographic data describing persons living in the 50 States and the District of Columbia who identify themselves as being of Spanish origin — Spanish speaking, Spanish surname. As of March 1971, almost 9 million residents were identified as being of "Spanish origin." The three largest groups of United States residents include more than 5 million Mexican Americans, almost 1.5 million Puerto Ricans, and more than 600,000 Cubans. The remaining 1.8 million SSSS includes Central or South Americans, and "other" people of Spanish origin (see table 1).

Some SSSS spokesmen have suggested that official census reports underestimate the number of SSSS in the United States. This inference is based on alleged omission of migrant farm workers from census polls, casual enumerative practices among the barrio poor, and misidentification of some Mexican Americans as Mexican citizens. Although any estimate based upon assertions such as these must be speculative, the suggestion has been made that the SSSS population may range as high as 11 million. The census figures also do not include the 2.5 million inhabitants of the Commonwealth of Puerto Rico.

Table 1–1. U. S. population of Spanish origin, subdivided by sex: March 1971 (numbers in thousands).[1]

Ethnic origin	Male	Female	Totals[2]
Central or South American	235	267	501
Cuban	313	313	626
Mexican	2,562	2,461	5,023
Puerto Rican	655	795	1,450
Other Spanish origin	654	703	1,356
Totals[2]	4,419	4,539	8,956

[1] Adapted from table with a similar title in: Selected characteristics of persons and families of Mexican, Puerto Rican, and other Spanish origin: March, 1971. U.S. Bureau of the Census *Current Population Reports*, Series P–20, No. 224. Washington, D.C.: U.S. Government Printing Office, 1972. p. 3.

[2] Apparent inaccuracies in subtotals and totals are due to rounding error.

The earlier census report (1969) indicated that almost 80 percent of the Mexican Americans reside in the five Southwestern States of Arizona, California, Colorado, New Mexico, and Texas. The remaining 20 percent reside in smaller communities — usually in isolated pockets — in States outside the Southwest such as Illinois, Michigan, New York, and others. These relative proportions probably have not changed to any significant degree during the 2-year period between these census reports.

Regardless of the precision of these estimates, it is clear that the SSSS represent the second largest ethnic minority group in the United States. As we shall document below, by citing data from the 1971 census, the SSSS experience significant socioeconomic deprivation.

Demographic Characteristics

The SSSS vary widely with regard to duration of residence. Each day, for example, Mexicans cross the border, legally and illegally, to the Southwestern States, and Puerto Ricans and other Latin Americans arrive in Eastern metropolitan areas. Some of these new arrivals will elect to become U.S. citizens, while others will eventually return to their country of origin. In contrast to these recent arrivals, some of the SSSS have resided in the United States for generations, even centuries. The descendants of the original settlers of northern New Mexico, for example, arrived in that area only a few decades after the arrival of Cortez to the New World in 1519.

Despite the long history of some SSSS in this country, however, no SSSS group has prospered as have other ethnic groups who have entered the mainstream of American life. On the contrary, the SSSS have always experienced serious economic hardship. As table 2 shows, for example, the yearly median SSSS family income is almost $3,000

Table 1–2. A comparison on selected demographic variables between Spanish speaking, Spanish surname (SSSS) and the general U.S. population (USP).

Variable[1]	SSSS	USP
Median income (1970)		
Family	**$7,334**	**$10,246**
Male	**$6,220**	**$ 8,220**
Female	**$2,600**	**$ 2,660**
Low income level (1970)	**25%**	**10%**
Unemployment (1971)	**8.6%**	**6.0%**
Education (1970)		
Less than 5 years	**20%**	**4%**
High school graduation	**48%**	**80%**

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[1] Figures in parentheses represent dates of publication of the various U.S. Census reports from which these data have been extracted.

less than the general population ($7,334 vs. $10,246); 25 percent of the SSSS fall below governmental "low income levels," compared to only 10 percent of the general population; and unemployment in 1971 was 8.6 percent among the SSSS, but only 6.0 percent among the non-SSSS. With regard to education, 20 percent of the SSSS have completed less than 5 years compared to only 4 percent of the general population; and only 48 percent of the SSSS have completed high school, compared to a national frequency of 80 percent.

The 1969 census shows that for approximately 70 percent of the SSSS, Spanish is the mother tongue and that more than half speak Spanish "primarily" while in the home. This report also indicates that 80 percent of the SSSS were born in the continental United States, Puerto Rico, or some U.S. territory. Approximately 80 percent of the SSSS are urban; one may speculate that the remaining 20 percent are probably farm workers and, possibly, migrant laborers. Although these data are 4 years old, there is no obvious reason to suspect that relative frequencies cited here have altered drastically since the date of publication.

Some Conclusions

The demographic data presented above lead to several inferences. The first and most obvious is that the SSSS are on the lowest rung of the socioeconomic ladder. Limited financial resources lead, in turn, to what has been called "culture of poverty," in which adequate nutrition, health care, and housing are, for the most part, unavailable. As we shall discuss in greater detail later, poverty seems to represent one of several reasons why the SSSS leave school to seek work. One also might reasonably speculate that this poverty cycle may contribute to a higher frequency of mental disorders among the SSSS. As discussed in a succeeding chapter, however, this interpretation is seemingly contradicted by data showing that the SSSS use mental health facilities far less than other population subgroups.

The second inference which emerges is that the SSSS — despite apparent similarities in culture — represent a heterogeneous population. To elaborate, although Puerto Rico and Mexico are both Latin American countries and share an Hispanic culture, there are large and important differences between them in size, geography, racial composition of their population, political system, and in the general character of their people. In part the differences are due to the method of colonialization of both Mexico and Puerto Rico by the Spaniards. At the time of the discovery of the New World the Indian populations of Mexico had achieved a high degree of civilization not equaled by the indigenous inhabitants of Puerto Rico. With colonization, the native inhabitants of the island were virtually eliminated and replaced by Negro slaves transported to Puerto Rico by the Spaniards. In Mexico, on the other hand, Indian populations were subjugated, but not eliminated. Today one finds a Mexican population and culture which is the fusion of the Indian and the Spaniard, while in Puerto Rico there is a fusion of the Negro and the Spaniard: A subtle difference to be sure, but a difference to be taken into account when trying to generalize about the SSSS population.

Another factor which makes generalizations difficult is the duration of residence in the United States of the various SSSS subgroups. That is, long-term SSSS residents differ from recently arrived immigrant groups in terms of degree of acculturation, which in turn is related to such other factors as fluency in English, potential for employment, possible success in school, and knowledge of community resources for obtaining economic relief, health care services, legal counsel, and other services.

We will deal with these variables in greater detail in subsequent chapters. The major point here is that the SSSS is heterogeneous; it includes subgroups which may, for example, respond differentially to the same treatment program. Thus, different research strategies may be necessary to generate answers to the *same* questions among different SSSS subgroups, whether Mexican American, Puerto Rican, Cuban, or Central or South American.

Furthermore, vast individual differences may exist even among members of the same SSSS subgroup. For example, very different self-concept measures would probably be obtained from two groups of Mexican American subjects if one group were long-term urban residents and the second were migrant farm laborers (see for example Dworkin 1965). Similarly, in discussing response to psychotherapy, the Puerto Rican psychiatrist Bernal y del Río (1971) identifies a number of subcultural traits which influence therapeutic response. He cites specifically "Puerto Rican background" (i.e., island vs. mainland birth), "ethnic background" (Caucasian vs. black), and language (30 percent of his patients are English speaking). He then goes on to point out how these factors and others influence a number of adaptive and maladaptive behaviors related to successful psychotherapy.

These *across* and *within* SSSS subgroup similarities and differences must be kept in mind as the reader peruses the literature review which follows. The conclusion which will emerge consistently is that one set of findings which relates well to one SSSS subgroup may have limited relevance for another subgroup. In chapter 2, for example, we will outline a group psychotherapy program which has proven highly successful with adult male Puerto Ricans who are native born. The point is that such a program may have limited utility for a "similar" SSSS subgroup (e.g., mainland born Puerto Ricans), or for a "different" SSSS subgroup (e.g., urban dwelling Cubans). To be even more explicit, we are also implying that research findings based upon one SSSS subgroup may be relevant to that subgroup *only* and conceivably may have only limited relevance to other SSSS subgroups.

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MENTAL HEALTH PERSPECTIVES

Demographers consistently agree that ethnic minority group members, and particularly minority group members who are *poor*, receive less health care than the rest of the population. Studies surveyed in this analysis confirm the demographic findings; in fact, some indicate that the problem may be more serious in mental health care (see, for example, Hollingshead and Redlich 1958; Kolb, Bernard, and Dohrenwend 1969; and Srole et al. 1962). Furthermore, studies dealing with the national delivery of health services to ethnic minority group members reveal that Spanish speaking, Spanish surnamed (SSSS) possibly receive the *least* amount of mental health care of any population subgroup (Padilla 1971).

Underutilization of mental health services by the SSSS is *serious* in nature and *national* in scope. For example, Karno and Edgerton (1969), using California census figures, estimated that Mexican Americans made up 9–10 percent of the State's population in 1962-1963; the authors found that, during this same period, the percentages of Mexican Americans receiving treatment in California were as follows: 2.2 percent admissions to the State hospital system, 3.4 percent to State mental hygiene clinics, 0.9 percent to the Neuropsychiatric Institute, and 2.3 percent to State-local facilities. The resident inpatient population was 3.3 percent. Thus, underrepresentation ranges from 6.6 percent to 9.1 percent. Although these data emanate from one State only, other localities also report high degrees of underrepresentation (e.g., Jaco 1959).

A second series of studies, again restricted to California but almost certainly representative of other areas, suggests that although Mexican Americans receive relatively *less* mental health care than the general population, they actually need *more*. Investigators such as Karno and Edgerton (1969) and Torrey (1968 and 1969) point out that the California Mexican-American population is subject to a number of "high stress indicators (i.e., predictor variables) which are correlated with mental breakdown (or some form of self-destructive behavior, such as alcoholism, drug addiction, or suicide) and subsequent need for treatment. The indicators include (a) poor communication skills in English; (b) the poverty cycle—limited education, lower income, depressed social status, deteriorated housing, and minimal political influence; (c) the survival of traits from a rural agrarian culture which are relatively ineffectual in an urban technological society; (d) the necessity of seasonal migration (for some); and (e) the very stressful problem of acculturation to a society which appears prejudicial, hostile, and rejecting. These authors conclude that the consequences of such stresses would be greater *incidence* of mental disturbance and that the problem of underutilization of mental health services by this SSSS group, therefore, is *much more serious* than the census data imply.

Several studies to date have reported data which are supportive of the hypothesis that the SSSS require more mental health care. Malzberg (1956 and 1965), reporting on mental disease among Puerto Ricans in New York City during the years 1949 - 1951 and then again in 1960 - 1961, notes that Puerto Ricans are significantly overrepresented in State mental institutions. Similarly Srole et al. (1962), in their Midtown Manhattan Study, maintain that the "complex of exogenous sociocultural forces and pressures, converging with endogenous selection processes, may create turbulent effects" (p. 293) which predispose Puerto Ricans to mental distress. In addition, Wignal and Koppin's (1967) analysis of public mental hospital admission rates in Colorado for 1 year showed that Mexican Americans (especially males in the 20 - 34-year age group and alcoholic females) are more likely to be admitted to a State hospital. They conclude that stress produced in the acculturation process and discriminatory hospitalization practices were the major contributing factors in their findings. For example, they state:

> Cultural differences may also account for the significantly higher admission rates for Mexican American males and for metropolitan Mexican American alcoholic females. Here the rate may serve as a measure of the amount of stress produced by acculturation. This stress is higher in metropolitan areas where the percentage of Mexican Americans in the population is low and where there is little support from a viable Mexican American community. [p. 146]

In regard to discriminatory hospitalization policies Wignall and Koppin argue that:

> The potential for such discrimination is greatest in the metropolitan area. Here one finds not only a higher percentage of individuals undergoing acculturative stress because of their separation from the support of a viable native culture but also a lack of ethnically based political power to discourage discrimination in the commitment process. Mexican Americans are poorly represented in the agencies of social control. [p. 147]

What type of treatment does this very limited number of SSSS Americans receive? Two studies, illustrative of a general area of research (Bloombaum, Yamamoto, and James 1968; and Yamamoto, James, and Palley 1968), report data on the psychiatric care of 594 men and women from four groups: 387 Caucasians, 149 Negroes, 53 Mexican Americans and five Orientals. These authors report that compared to Anglo controls, SSSS patients are referred for individual or group psychotherapy less often, receive less lengthy and intensive treatment (e.g., terminate sooner or are not recommended for continued sessions), and are referred more often for ataractic medication.

To evaluate quality of treatment, it is necessary to distinguish between a recommendation for medication and one for psychotherapy. The primary function of medication is to alleviate the *symptoms* of distress such as anxiety or depression. But even when successful in symptom reduction, medications effect no enduring change upon the patient's personality. Although the patient "feels better" (no small accomplishment), his "coping" ability is unchanged since he learns nothing new. In psychotherapy, by contrast, the patient theoretically is provided with "insight" (i.e., better understanding of himself, others, and his environment) and is encouraged, either explicitly or implicitly, to improve the quality of his "problem-solving" ability as a means of decreasing the probability of future maladjustment. Other available psychosocial treatment modalities (e.g., operant conditioning) might be noted, of course, but a systematic discussion of them is beyond the scope of this review. The point is that the SSSS patient is typically referred for treatment which may reduce his discomfort but which certainly does *not* provide him with the cognitive skills or emotional strength to avoid or endure future stress.

Explanations of Psychiatric Care for SSSS

There are basically three alternative formulations to explain why SSSS receive proportionately *less* mental health care and why, when delivered, it tends to be of *poorer* quality:

- Lower frequency and severity of mental illness.
- Utilization of "folk" medicine and/or "faith" healers as alternatives to conventional treatment modalities.
- Institutional policies which discourage self-referrals from SSSS or which discourage continuation in treatment once referred.

Lower Frequency and Severity of Mental Illness

Some evidence exists for the point of view that certain aspects of the SSSS culture provide protection against mental breakdown or continued familial support after a breakdown. The most influential proponents include Jaco (1959 and 1960) and Madsen (1964). Both writers base their conclusions on Mexican-American samples drawn from south Texas. Jaco, after finding that Mexican Americans are underrepresented in residential care facilities for the mentally ill, argues that the extended family system of Mexican Americans provides warmth and support during periods of high emotional stress. Jaco concludes that this familial support system results in a reduced rate of mental breakdowns among Mexican Americans. Madsen generally concurs with this "stress resistance" formulation, but adds an elaboration of the protective role of the extended family system. He suggests that Mexican Americans discourage the referral of family *members to mental health centers* – as they would to any other Anglo institutional structure – since these are perceived as alien and hostile.

An alternative position has been suggested that certain personality traits of the SSSS are responsible for lower rates of self-referrals to mental health centers. As a small part of a larger study on Mexican Americans from east Los Angeles, Karno (1966) notes with appropriate caution the possibility that some SSSS appear passive, deferent, polite, and silent, or at least they interact that way with certain people in certain situations. These traits render the SSSS relatively ineffectual in competing for goods in high demand — in this case, competition for the limited amount of available therapy time. The effect of this "assertion deficiency" is enhanced since most therapists and other mental health personnel are Anglo authority figures.

The argument that SSSS members are better prepared to tolerate stress or require less support from social institutions appears weak in the face of overwhelming rebuttals. All other authorities agree that SSSS members experience as much stress, and possibly even more stress, than do members of comparable ethnic minority groups. As noted earlier, Karno and Edgerton (1969) and Torrey (1968 and 1969) identify five sources of massive psychological stress to which SSSS are subjected routinely in their daily lives. Furthermore, these types of stress are highly correlated with breakdown or self-destructive behaviors and treatment among all other American subgroups, whether minority group members or not. Noting this coincidence, some authors believe that the explanation for the underutilization of mental health resources by SSSS must be sought elsewhere.

Use of "Folk" Medicine and/or "Faith" Healers

There is a small and steadily growing literature on the use of folk medicine and the practice of faith healing among the SSSS. Detailed information concerning methods employed has minimal relevance to a review of this type; but the interested reader is referred to any one of several sources (e.g., Creson, McKinley, and Evans 1969; Edgerton, Karno, and Fernandez 1970; Garrison

1971 and 1972; Kiev 1964; and Lubchansky, Ergi, and Stokes 1970). The important point is that these authors, and others to be identified below, either argue or imply that such practices are sometimes selected as *alternative* solutions for the types of emotional problems for which most Americans would probably seek more commonplace psychiatric treatment.

One reason why SSSS may prefer folk healers to more conventional psychiatric treatment may rest in a difference of what constitutes mental health (or illness) for the SSSS. Mental health (or psychological well being) is usually defined by the non-SSSS in terms of "adequate adjustment, particularly as such adjustment conforms to the community-accepted standards of what human relations should be" (Hinsie and Campbell 1970, p. 388). However, the Spanish equivalent of mental health, *salud mental*, does not exist as a concept for the SSSS. For the SSSS there is no separation between the psychological and total well being of the individual. Thus the SSSS is more likely to express his condition of well being in terms of "*estar saludable*," "*ser feliz*," "*sentirse o estar como un cañon*," or "*estar sano o fuerte*" all of which imply a physical as well as a psychological component.

This difference in what constitutes well being is important because it may explain in part the underutilization of mental health care by the SSSS. Specifically, the SSSS person "*que no se siente sano*" (who doesn't feel well) is more likely to consult a physician or folk healer for a physical basis for his condition. Likewise, family members who perceive that one of their relatives is not *sano* will also be more predisposed to attribute the condition to a physical, rather than psychological, cause. This is an extremely subtle point which must be understood by non-SSSS mental health practitioners who intend to provide mental health services to the SSSS.

It should be pointed out that the literature discussing folk healing practices among SSSS also reflects the difficulty investigators have had in interviewing and studying the folk healing practices of the SSSS. Because of societal sanctions, folk healers are reluctant to discuss their practices with outsiders.

As in almost every culture, practitioners of so-called "folk" medicine and "faith" healing stand at the interface between religion and health — between "faith" and "healing." In contemporary American society, professional standards for practitioners of both religion and medicine are guaranteed by custom, and in some cases, by statute. The more the practice of a faith healer resembles that of a minister, priest, or rabbi in the eyes of the majority group, the greater the risk of social censure. Or, the more his practice resembles that of a dentist, physician, or osteopath (among others), the greater the risk of fine or imprisonment for unlicensed practice. Thus, as with any behavior disapproved by society, practice is covert and estimates of frequency of occurrence are likely to prove unreliable.

Creson et al. (1969) present data from interviews with 25 Mexican Americans receiving treatment in either a pediatric or psychiatric outpatient clinic. Five subjects admitted having used a faith healer at least once, seven reported that at least one family member had used one, and 20 demonstrated familiarity with the concepts or language of faith healing. These data imply a substantial degree of recourse to faith healers among Mexican Americans, even among patients receiving conventional medical treatment. A second interpretation is that, among this particular SSSS group, these beliefs are highly stable. To quote the authors, "the concept of folk illness was deeply entrenched and resistant to the influence of the Anglo culture and its scientific medicine" (Creson et al. 1969, p. 295). Thus, it may be that recourse to faith healing is frequent enough to inhibit self-referrals to mental health centers.

In an attempt to answer why the SSSS underutilize mental health services, Torrey (1968 and 1969) observes that Mexican Americans in California's San Jose and Santa Clara counties, have "their own system of mental health services" (1969, pp. 11-15). He goes on to describe how this SSSS group seeks improved health from self-referral to faith healers. Practical advice is sought from respected community leaders whom Torrey calls "mental health ombudsmen." The implication of these comments, although never explicitly stated, is that decreased frequency of referral to Anglo mental health systems *cannot*

be explained on the assumption that Mexican Americans are substituting services from this alternative system Torrey describes.

The Karno-Edgerton group recognizes the existence of faith healing and describes its practice. These investigators point out, however, that use of the system is minimal and that its existence *cannot* be used to explain the underutilization of conventional health services (see especially Edgerton, Karno, and Fernandez 1970).

Data reported by Nall and Spielberg (1967) support the Karno-Edgerton conclusion. These authors studied 53 tubercular Mexican Americans in Texas; 27 accepted the treatment regimen and 26 did not. The authors conclude that "folk medical beliefs and practices . . . have . . . no demonstrable impact . . . on either the acceptance or rejection of treatment for tuberculosis" (p. 299). In this regard, Lubchansky, Ergi, and Stokes (1970) and Garrison (1971 and 1972) in studies of Puerto Rican spiritualists in New York City, report that although spiritualists are consulted, Puerto Ricans also seek professional services. Thus, among Puerto Ricans who believe in folk medical practices, more conventional medical health services are sought when available. For this reason, these authors conclude that the efficacy of professional treatment practices are confounded by the existence of this alternative system of mental health. Accordingly, it is necessary to have collaboration between *all* health practitioners, medical as well as folk, in effective mental health program planning.

To summarize briefly, belief in folk medicine by certain ethnic minority group members is almost always an ingroup phenomenon and, therefore, will not be readily admitted to investigators from the majority group. Furthermore, to avoid social censure and/or legal punishment, the practice of faith healing is almost always covert. Thus, frequency data reported by Anglo investigators must be viewed with caution. These points illustrate once again that valid and reliable data on an ethnic minority group can best be obtained by its own members who are sophisticated in scientific methodology. In the absence of trustworthy empirical data, "expert opinion" must be relied upon. The analysis of papers reviewed in this section *seems to suggest* that underutilization of traditional medical services *cannot* be explained on the basis that substantial numbers of the SSSS are substituting either folk medicine or faith healing.

Discouraging Institutional Policies

Since the majority of writers identify the same variables in discussing the underutilization of mental health services by the SSSS, it is possible to summarize part of a single article to present these conclusions. Torrey (1969) describes mental health facilities located in a catchment area of 1 million persons, of whom approximately 100,000 are Mexican American. He evaluates these facilities as "irrelevant" for Mexican Americans since 10 percent of the local population generates only 4 percent of the patient referrals. He also concludes that the bilingual poor should be expected to generate a *larger* proportion of referrals because they are subject to many stresses known to bring on mental breakdown. His explanation for this discrepancy is based on the following variables:

- *Geographic isolation.* Mental health services are "inaccessible" to the SSSS because they are often located at the farthest distance possible from the neighborhood of the group with the highest need. All too often community mental health services are attached to schools of medicine or universities located outside of the barrio and accessible only by a half hour, or so, bus ride. Not only does the distance impede the frequency of self-referrals, but the cost of transportation and the lack of adequate child care during the absence of the mother also serve to decrease the utilization of mental health facilities by the SSSS.
- *Language barriers.* Torrey describes the "majority" of local Mexican Americans as bilingual and a "significant minority as speaking little or no English." Nevertheless, only five members of a professional staff of 120 studied by Torrey spoke any Spanish at all, and none of the directional and/or instructional signs were in Spanish. The interpretation that referrals will decrease if patient and therapist cannot communicate is shared by Edgerton and Karno (1971) and Karno and Edgerton (1969), among others.
- *Class-bound values.* Here the reference is primarily

to *therapist variables* — that is, to personal characteristics of the professional staff which dissuade the patient from continued mental health treatment. Torrey indicates that therapists conduct treatment in accord with the value system of the middle class (e.g., "Be punctual for next week's appointment and expect to remain for a 50-minute session."). To comment on the obvious, the middle-class approach has proven ineffective with and discouraging to patients who have lower-class values. When frustrated because patients fail to respond to this approach, psychiatrists tend to rely more and more frequently upon the prescription of medication as the treatment of choice. These points have been noted by the Karno-Edgerton group as well as Kline (1969).

- *Culture-bound values.* Again, Torrey attends to *therapist variables*. His point is that whenever therapists from one culture diagnose and prescribe treatment for patients from another culture, there is an inherent probability of professional misjudgment. To illustrate he cites data indicating that 90 percent of Anglo residents in psychiatry associate the phrase, "hears voices," with the word, "crazy," whereas only 16 percent of Mexican-American high school students make the same association. The concept of intrinsic culture conflict is also advanced by Bloombaum, Yamamoto, and James (1968), the Karno-Edgerton group, Kline (1969), and Phillipus (1971).

These four factors discourage utilization of mental health services by the SSSS. Let us now examine in greater detail the *process* which occurs in those rare instances when the SSSS does refer himself for treatment. What goes on during treatment can be examined in terms of *therapist variables* and the SSSS's perception of the professional and the institution.

In a study of cultural stereotypes held by practicing psychotherapists toward minority group patients (Mexican Americans, blacks, Japanese, Chinese, and Jews), Bloombaum, Yamamoto, and James (1968) present two major findings. First, "negative attitudes" held by psychotherapists are the same as those found among the general public. Second, these prejudices motivate psychotherapists to establish and maintain social distance between themselves and their minority group patients.

Needless to say, such behavior is destructive to the formation of the type of intimate interpersonal relationship which characterizes most psychotherapeutic techniques.

In a case-history study of Spanish Americans in Colorado, Kline (1969) reports that this patient group perceives Anglo psychotherapists as "cold, exploitive and insincere." Although to some extent this perception represents a prejudicial attitude which members of this particular minority group hold toward this particular majority group, Kline elaborates on several therapist behaviors which reinforce the impression. Anglo psychotherapists typically possess minimal understanding of the various SSSS subcultures. Thus, they tend to request information during intake interviews which the patients perceive as irrelevant to their problems. Furthermore, psychotherapeutic sessions are frequently unproductive and mutually frustrating because the therapist sometimes fails to grasp the full implications of material being communicated. Another therapist variable which retards treatment progress is the tendency of some socially sensitive psychotherapists to experience "guilt" when confronted by their patients' anecdotes involving prejudice and discrimination. The implication is that both of these latter two factors influence psychotherapeutic judgment adversely.

Karno and Edgerton (1969) raise an interesting point missed by other commentators. They note that the medical model of psychopathology determines the kinds of questions raised during history taking. The emphasis upon physical symptoms predisposes the interviewer to neglect material of potentially much greater value (e.g., ethnographic data).

A summary may be helpful before indicating which specific variables are related to the *fact* of underutilization of mental health services by the SSSS. First, the position that SSSS referred themselves less frequently because there was less need for treatment was rejected because this group actually experiences much *more* stress of various types and can, therefore, be expected to manifest a higher degree of mental breakdown. Second, the position that folk medicine and faith healing serve as alternatives to traditional medical services among the SSSS was also shown to be untenable. Significant problems exist however, in gauging the popularity or determining the nature of faith and folk healing. A third explanation for underutilization — that professional staff and institutions "discourage," both directly and indirectly, the delivery of their services to the SSSS — appears to be true. The variables which seem to be operating include: (a) geographic inaccessibility of some facilities; (b) problems in communication due to monolingualism among the professional staff; (c) inaccurate diagnostic and treatment decisions based on middle-class values; and (d) similar errors based on cultural differences. Therapist variables, confounded with the above, which discourage referrals from SSSS include: (e) prejudice; (f) social distance; and (g) reliance upon a traditional physical symptom model of inquiry which omits consideration of potentially significant ethnographic data. All articles reviewed bearing on this position seem to concur that the SSSS do not refer themselves to traditional mental health services because they are told — sometimes overtly, sometimes covertly — that their presence is unwelcome.

A View of Some Innovative Programs

Having concluded that professional attitudes and institutional practices tend to discourage self-referrals from the SSSS, let us now examine how treatment programs can be tailored to fit the needs of specific SSSS subgroups.

Karno and Morales (1971) describe the effort in east Los Angeles to design a community mental health service which would attract local Mexican Americans. Major innovations were implemented in staffing, service quarters, and treatment programs. At the end of a 2½-year recruitment program, the medical director had attracted 22 full-time professional, paraprofessional, and clerical personnel. Of these 22, 15 were "completely fluent," four were "conversant," and three had a "rudimentary knowledge" of Spanish. Ten were natives and/or residents of the area. More interesting is the fact that 12 were Mexican American and two were of other Latin (Cuban and Peruvian) descent. Service quarters selected are described thus: "in the heart of the . . . community, convenient for . . . transportation, and comfortable . . . and inviting." The treatment program was based on the philosophy of prevention. Thus, the major thrust was upon mental health consultation to a wide variety of community service agencies. As a backup, the center offers short-term crisis-oriented treatment using individual, family, group, and chemical therapy. The centers seem to be fulfilling the objective of providing appropriate treatment for Mexican Americans because the first 200 patients matched local population figures.

A somewhat similar program has been created for the Hispanic population of Denver (Phillipus 1971). Three of eight team members are Spanish speaking and the center is located in the neighborhood of the target population. It is in a building designed so that prospective patients enter a reception area furnished to resemble a living room. The first person the patient comes in contact with is usually a secretary-receptionist, who is *always* Spanish speaking. The patient is referred immediately to a team member to begin whatever action seems necessary. The rationale is that treatment is directed toward crisis resolution which, by definition, is incompatible with rigid adherence to the traditional 50-minute-hour schedule. The staff began to refer to each other and to the patients on a first-name basis when it became apparent that the use of more formal address was estranging some members of the Hispanic group. Once again, unequivocal data bearing on the appropriateness of the program for the SSSS is difficult to obtain because of its recency. Nevertheless, the authors report a gradually increasing number of new referrals and a total patient load which is representative of the target population in terms of ethnic distribution. Furthermore, Hispanic self-referrals dropped when certain aspects of the total program were eliminated, but returned to former levels when reinstituted.

Maldonado-Sierra and Trent (1960) describe a group psychotherapy program created for chronic, regressed, male, Puerto Rican schizophrenics. This program is described as "culturally relevant" for this particular group because therapeutic techniques were based on certain assumptions concerning the structure and function of the Puerto Rican family. The father of these families is described as typically a "dominant, authoritarian" figure and the mother as submissive, nurturant, and loved. The older male sibling is perceived as a figure whom the other siblings respect, admire, and confide in. In this paper and in a second (Maldonado-Sierra, Trent, and Fernandez-Marina 1960), the authors describe how these observations were translated into action.

First, three groups of eight patients each spent several weeks together in a variety of activities under the supervision of an individual who represented the older male sibling. A few days before group sessions were initiated, the group was introduced to an older male therapist who represented the father figure. He maintained dignity, remained aloof and restricted social interaction to brief interchanges. The third therapist was an older female who fulfilled mother-figure expectations by distributing food and chatting informally.

The complexity of the group psychotherapy process of this type is too extensive to describe here. Suffice to state that this analog of the Puerto Rican family permitted patients an opportunity to identify their common problems and to resolve them therapeutically. Results shows that, of the 24 regressed patients who were treated by Maldonado-Sierra et al., 11 were rated "greatly improved" and discharged, seven "much improved," and six "showed little substantial improvement." In view of the severity of pathology of the patient group, the authors evaluate the results of their efforts as "gratifying."

Lehmann (1970) reports on the success and failure over a 2-year period of three storefront neighborhood service centers in New York City. He describes the "typical client" who utilizes the community psychiatric service, as

> . . . a Puerto Rican woman in her mid-30s with two or three children and there is a 50 percent likelihood that there is no father present in the family. She is usually an unemployed housewife receiving support from the welfare department. Her income is seriously sub-standard at less than $3,000 a year. She was almost certainly born in Puerto Rico (96 percent of the Puerto Rican clients were born there) but has lived almost a third of her life in New York City. Still, there is only about one chance in three that she speaks English well (only 36 percent of the Puerto Rican clients could do so). [p. 1446]

In his analyses of the services provided by these three storefront centers, Lehmann concludes that "their record for problem solving is less than brilliant," but that, nonetheless, the centers were successful because of their accessibility, informality, their open-door policy in respect to problems and people, and their use of people from the community to perform the services. According to Lehmann, clients reported that they felt rewarded because "someone listened," they were "well treated," and they were not ignored. Moreover, the structure of such centers proved to be very successful—especially with clients with histories of psychiatric illness.

The major conclusion is that successful therapeutic programs for SSSS groups are possible when cultural and social variables are considered. Before returning to the literature to examine the types of program recommendations that can be formulated, it should be noted that there is an absence of literature bearing on the incidence and treatment of alcoholism, drug addiction, and suicide among the SSSS. Just as one would postulate a relationship between psychological stress and incidence of mental disorders among the SSSS, one might expect the stress that SSSS experience to affect the incidence of self-destructive behavior. Yet little has appeared in the relevant literature to enable us to plan effective intervention programs. Both Madsen (1964) and Jessor, Graves, Hanson, and Jessor (1968) have discussed the stress-inducing circumstances surrounding the alcoholism of Mexican Americans, but have provided little insight into treatment programs. Similarly, numerous writers (e.g., Ball and Pabon 1965; Ball and Snarr 1969; Munns, Geis, and Bullington 1970; Redlinger and Michel 1970) have examined the incidence of heroin addiction among the SSSS, but have offered little of value in planning effective rehabilitation programs. As far as suicide is concerned, even less is known. Aranda and Padilla (1973) reported a low incidence of suicide among Mexican Americans in one county in California. Whether this lower rate of suicide holds true for all SSSS groups remains to be determined. Of more importance, though, is the fact that by all appearances mental health practitioners are poorly equipped to handle the suicidal SSSS person. Only after considerably more is known about how stress affects the SSSS can we begin to plan adequate and comprehensive mental health programs for the SSSS.

Future Needs and Recommendations

The literature supports the conclusion that SSSS groups are significantly underrepresented in terms of the utilization of mental health services. Furthermore, there is considerable agreement that underutilization is related to a number of institutional policies which discourage self-referrals. The impact of these policies is potentiated when a rare SSSS actually does refer himself for treatment and encounters personnel who manifest prejudicial attitudes.

What are possible solutions to this problem? First, there are the obvious answers: No social institution can effectively deliver services if isolated geographically from the target population. In terms of positive recommendations, new centers should be situated in the appropriate neighborhoods. Centers established at a distance from the target population must "attract" clientele — possibly by following a business model. Possibilities include arranging transportation (e.g., a busing service or perhaps a patient share-a-ride system) providing child care facilities for parents (e.g., at the center or home-visit "babysitters") encouraging regular attendance at therapy sessions (e.g., through reduced fees, by remaining open "after hours").

There is the obvious problem of communication. Potential clients whose predominant language is Spanish will certainly feel unwelcome in settings in which they cannot read signs, are greeted by clerical personnel to whom they cannot communicate their needs, and are subsequently referred to Anglo, monolingual English-speaking professionals. The use of translators is uneconomic, may not communicate nuances successfully, and seems to possess a vast potential to offend and estrange both patient and professional.

Crash programs in Spanish-language acquisition for monolingual, English-speaking professionals are a partial solution to this problem. But language skill is not enough. As article after article indicates, the mental health professional must be knowledgeable about the culture of any particular SSSS subgroup he works with in order to be effective. Mental health centers may remedy such educational deficits on the part of their professional staff by presenting lectures, seminars, and films on the particular subgroup being treated. In this context, the use of community representatives as teachers and/or consultants who impart insight to a particular subculture can be invaluable.

Another potential solution to the general problem of poor communication between patient and therapist lies in the employment of local community representatives at the paraprofessional level. It is assumed that the efficacy of these paraprofessionals will be directly related to the quality of training programs in treatment methods which they will be providing. Some authors have suggested that practitioners of folk medicine and faith healers be considered potential candidates for such training programs since they already enjoy the confidence of the people. This is a difficult recommendation to evaluate since firm evidence concerning the nature and extent of the practices is as yet unavailable.

One recommendation which seems to have great potential to achieve maximum social benefit is to create a cadre of SSSS professionals to provide treatment and to conduct research in the mental health area. In a recent survey of selected mental health personnel, Ruiz (1971) identified 58 SSSS psychologists from a pool of approximately 28,500 and 20 psychiatrists out of 16,000. Despite the tremendous underrepresentation these data denote, the situation is, in fact, even worse: 30 of the 58 psychologists are Spaniards, a group not ordinarily thought of as a disadvantaged minority group. Regardless of what causes this situation—inequitable governmental funding policies, unrealistic admissions standards at universities, or others — it is clear that conditions will not change without concerted effort. Thus, programs are needed to identify SSSS high school students with academic promise, to encourage continued education, to subsidize tuition and other expenses, and to motivate career choices in the mental health fields. It is recognized that this recommendation will require funding, legislation, and possibly legal pressure on high school counselors and admissions boards at the college and university levels. Without efforts of this type conditions will never improve.

A final comment about the proposed cadre of SSSS professionals: The importance of such a program to enlist the

SSSS in the mental health professions is that they will be members of the target populations and thus will be sensitive to cultural nuances. It seems reasonable to predict that such insight will facilitate delivery of more effective therapy, the development of culturally relevant treatment programs, and the execution of the necessary validating research.

With regard to treatment programs, a number of authorities have commented that many current modalities, especially those based on Anglo culture and/or middle-class values, have proven ineffective. Disenchantment has been expressed, for example, with the typical format of the 50-minute therapy hour conducted once per week at a regularly scheduled time. Encouraging results have been reported, however, from some centers which emphasize some combination of (a) community consultation as a preventive measure, (b) crisis intervention as a matter of course, and (c) "back-up" treatment with individual, group, family, or drug therapies. The literature supports the recommendation that additional, innovative programs be created and applied on a more widespread basis.

For illustrative purposes let us expand on some of the recommendations presented above. "Crisis intervention" may be defined and applied in a number of ways which are helpful to the patient, even crucial to his continued well-being, but which fall well outside of optimal — or even the usual — mental health models of care. Imagine, for example, a widow whose sole source of support is her monthly welfare check. Should this check be delayed only a few days, she and her family may be literally in a "crisis." A center sensitive to the needs of the target population in this hypothetical instance might furnish emergency funding, might contact tradesmen requesting credit, might implore creditors to wait "a few more days," or it might ask the welfare agency for immediate payment. Because this type of crisis intervention does not require professional education, this hypothetical patient could be rendered a tremendous service by a paraprofessional who spoke her language, grasped her plight, was knowledgeable concerning other community agencies, and who responded immediately.

Only a few articles have addressed themselves to architectural design of centers. These few imply, however, that this is a significant variable in increasing self-referrals. Centers which offer a "living room" reception area appear to be more successful. This effect is enhanced when the patient is contacted upon arrival by a Spanish-speaking representative who evaluates the nature of the problem and implements immediate disposition. An approach which encourages patients to visit when the need arises without adhering strictly to a formal schedule has also been proven effective. Once again, we return to the point that asking any patient — including a SSSS patient — in a crisis to "Come back next Tuesday at 10 a.m. for an appointment with the doctor" is grossly inappropriate.

Many of the articles surveyed have addressed themselves to the function of a mental health center; some have recognized that the SSSS frequently visit such centers in the hope of achieving resolution for multiple problems; and a few have commented on the perception the SSSS community has of such a center. If a proposed center is designed to create an identity within a given community that it serves the function of resolving multiple problems, then several consequences follow logically. In addition to "mental health" problems, such as psychotic decompensation or subjective discomfort, the SSSS community is plagued with a number of stress-inducing social problems. These include premature termination of education among the young, elevated rates of arrest and incarceration, abuse of illegal drugs and alcohol, and higher rates of unemployment — to mention only the most obvious. To be effective with these types of varied problems, such a center must offer appropriate programs: In addition to traditional therapeutic services, it should provide coursework in remedial education, vocational rehabilitation programs, drug abuse information programs, and possibly even college counseling. We can predict that these centers will be successful to the extent that they are perceived as an integral part of the community. And this conclusion leads to two additional recommendations.

First, these centers should attempt to become part of the community by offering facilities for services the community needs or desires. It should be possible, for example, to use center facilities for youth activities (sports, dances, etc.), for cultural events, (e.g., to show films from Mexico, to present speakers from Puerto Rico, etc.), and to satisfy a variety of other community needs. The second recommendation returns to an earlier suggestion concerning the "business model" of attracting clientele. There may be some value in using advertising media, in both Spanish and English, to disseminate information to the target population concerning available facilities, therapeutic services, and related activities.

3

NORMATIVE BEHAVIORS

This chapter focuses on the distinction between cultural invariance and cultural relativity in the assessment of what constitutes psychopathology among the Spanish speaking, Spanish surnamed (SSSS). According to the adherents of the cultural invariant position (e.g., Margetts 1965) psychological disorders are identical despite dissimilarities in cultures. Cultural relativists, on the other hand, maintain that what appears as a disorder in one culture may constitute a prized, a coveted social role in another and may pass unnoticed in a third (e.g., Leighton 1969).

In the preceding chapter, support for the cultural relativity position was seen in terms of the frequency of occurrence of certain types of behavior among the SSSS. Accordingly, one may infer that behaviors which denote psychopathology in the majority group may possess a different denotation in some SSSS subcultures. More specifically, behavior which may be "abnormal" among Anglos may be "normal" among the SSSS. To complicate the situation even more, behavior which appears strange, unusual, or even bizarre to someone who is not SSSS, may actually be very adaptive since it reduces stress.

We shall identify and describe behaviors which have different connotations to the SSSS. We shall emphasize again that there is a certain risk of inaccurate psychiatric evaluation of the SSSS if the evaluator is unfamiliar with SSSS culture. The information to be presented in this chapter is complex, sometimes contradictory, and ranges in rigor from well-controlled studies to informal essays that appear purely speculative. Moreover, the lack of epidemiological data on the nature, incidence, and prevalence of mental disorders among the SSSS is clearly apparent. Observations are organized into three categories: The *perception of reality*, the *family*, and *personal life style*.

The Perception of Reality

To begin, let us reconsider one finding reported earlier in a more extensive review of the work of the Karno-Edgerton group. Among Anglo psychiatric residents (who, after all, are being trained in the detection of psychopathology); 90 percent associate "hearing voices" with "being crazy," whereas only 16 percent of Mexican-American high school students make the same association. Phillipus (1971), in a study of Hispano residents of Denver, provides insight into these differences. First, he concurs with the Karno-Edgerton group that "hearing voices" has a different and less pathological connotation among the SSSS than among Anglos. He reports, for example, that upon choosing a religious vocation, an Hispano teenager will report "hearing voices" telling her to become a nun. One interpretation of such an experience is that the individual is relating an auditory hallucination with religious content and grandiose implications. Such an interpretation is flagrantly inaccurate. In the original Spanish and in certain SSSS cultures, such a description possesses no more pathological connotation than an Appalachian poor white stating that he "heard the call" to join an evangelical religion.

A second anecdote provided by Phillipus involves SSSS school children who were instructed to create a "fairy tale" as a classroom assignment. Approximately 75 percent wrote about *La Llorona*, a mythical folk figure who roams at night crying aloud in a perpetually futile search for the child she abandoned. This childish "fairy tale" related the myth accurately; sometimes in the loneliness of the night, one may hear the poignant, frightening cries of *La Llorona*. Anglo teachers attempted to convince the Hispano children that they could not possibly have heard the cries since such a person did not exist.

Several reactions appear relevant to this anecdote. First, it is a good example of "cultural conflict." Teachers and students failed to communicate since they shared dif-

LA LLORONA

ferent sets of underlying assumptions about a given event. Note how the teachers' conviction that *La Llorona* does not exist led them to the conclusion that the children were "wrong." Imagine further that any *one* of these children had related this chilling "fairy tale" to a psychiatric resident unfamiliar with Hispanic folk beliefs. The professional evaluation might have read something like this: "Unusual beliefs which appear to include delusional and hallucinatory elements suggesting severe impairment in thinking."

Now to make this "culture conflict" ludicrous, but no less serious in terms of the evaluation of psychopathology, consider this hypothetical event. Suppose another child completing a class assignment wrote a "fairy tale" about an old man dressed in a red suit and sporting a long white beard. He spends the year manufacturing toys. Every Christmas Eve he lands on roofs, descends through chimneys, and rewards well-behaved children with gifts. He travels in the sky borne in a sled pulled by eight reindeer. On occasion, as he leaves the roof of some lucky child's home he may be heard to shout, "Merry Christmas to all, and to all a good night!" What teacher would attempt to dissuade a child's belief in such a "fairy tale?" What Anglo psychiatrist would label such a belief system as delusional or hallucinatory?

Errors in psychiatric diagnosis are also possible on the basis of misinterpretation of certain *folk beliefs* held by some SSSS. Before describing these beliefs, it should be understood that we are not sure how widespread these beliefs are. As with folk medicine and faith healing, this kind of data is hard to obtain for a number of reasons. It is unlikely that people who adhere to folk beliefs will share such information with someone perceived as an outsider. On the other hand, a patient undergoing a psychiatric evaluation, who by definition is confused and disorganized to some extent, might reveal information about such beliefs which might otherwise remain covert. In such a case, an unsophisticated interviewer might assume he is eliciting a delusional system when, in fact, he is merely gaining access to esoteric information ordinarily shared only among fellow believers.

A number of authors (e.g., Galvin and Ludwig 1961; Karno and Edgerton 1969; Madsen 1961, 1964, and 1966;

and Romano-V 1965) attest that some SSSS subgroups believe in "witchcraft." These articles cite several instances of "bewitchment" *(embrujo)* and describe various types of "spells" and "rites" performed as curative measures. Furthermore, there is a belief in certain disease entities which do not appear compatible with theory or knowledge derived from traditional medicine. One such syndrome is *susto,* characterized by some combination of restlessness during sleep, loss of appetite, decline in physical strength and energy, listlessness, decreased interest in grooming and hygiene, depression, and a tendency to avoid social interaction (see especially Rubel 1964).

Etiological explanations are extremely complex. Rubel notes that among the Indians he studied in Mexico *susto* results when a patient "loses his soul" subsequent to some offense committed against the animistic spirit guardians of the earth. Among non-Indians, it is more commonly believed that *susto* results from a great fear associated with some type of "close call." Curing rites are equally complex, but the basic elements include a variant of a diagnostic interview designed to identify etiology with precision (e.g., "Have you been frightened recently?"), followed by some combination of massage, rubbing, "sweeping" with herbs, branches or some object, and "sweating."

These comments about *susto* are very cursory. Their purpose is not to explain the phenomenon in detail; but rather, to illustrate how easily one might misinterpret any part of this syndrome or its treatment as reflecting psychopathological processes. Furthermore, *susto* is merely one illustration of a number of other folk beliefs shared by certain SSSS groups. It should also be noted that all of these beliefs are equally incredible and fantastic when examined from within the context of contemporary medicine. For additional information about common folk beliefs see Madsen (1961).

As further supportive evidence of the above point, it is interesting to mention the findings of Rogler and Hollingshead (1965). These investigators queried schizophrenic Puerto Ricans about the source of their illness. From these interviews it was learned that these schizophrenics viewed their illness as a *wicked* intrusion that had caused them great suffering and from which they wanted to be free. They blamed their illness on problems at work and in the family, death of family members, starvation, physical beatings, and *bewitchment through evil spirits.* With such a belief system for explaining mental illness, it should be easy to understand why many SSSS seek cures for their illnesses from folk healers.

The Family

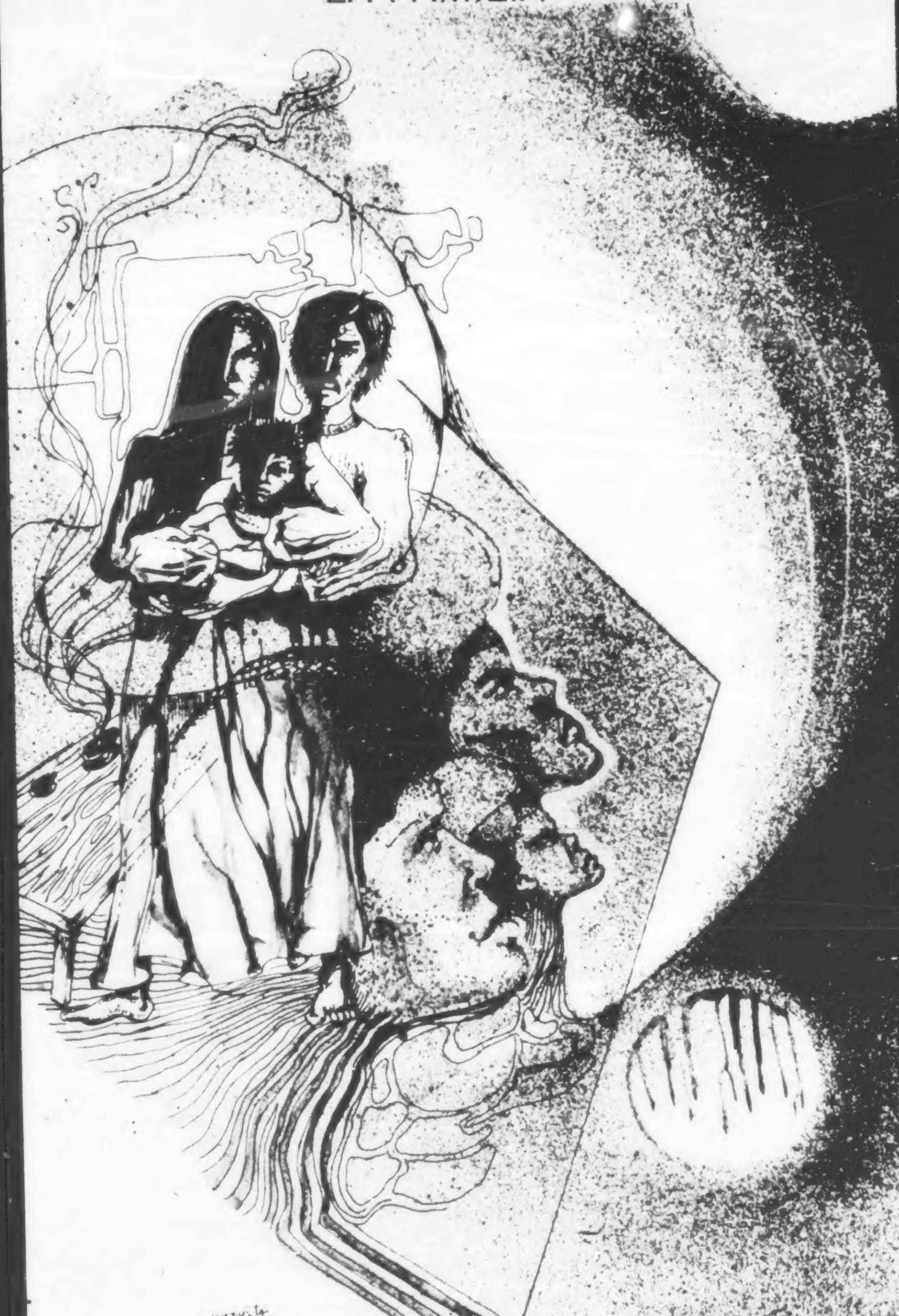
This section examines the *structure* and *function* of the SSSS family, including a detailed description of Mexican-American and Puerto Rican families. This material is included, of course, because we believe that better understanding of the SSSS family will minimize misdiagnosis of the SSSS by non-SSSS professionals.

One of the most outstanding features of the literature on the SSSS family is the agreement among authors concerning both structure and function. Despite this impressive unanimity, however, very little confirmatory data exist. With this reservation, let us examine the stereotype.

The first observation concerns widespread agreement that there exists a "typical" pattern of family structure characteristic of all SSSS subgroups. The basic components, which will be described in detail later, include an authoritarian father and a submissive mother, mutual acceptance of the doctrine of male superiority, and child-rearing practices which include indulgent affection and harsh punishment. Now it seems very reasonable that ethnic groups sharing a common cultural heritage will develop similar patterns of family interaction. Non-SSSS professionals should exercise caution in evaluating psychopathology based on patterns of family interaction. For example, a dominant husband and a submissive wife is the *expected* pattern among the SSSS and therefore does not denote psychopathology. Knowledge of information of this type is crucial in formulating plans for family therapy.

On the other hand, a number of writers seem to have gone too far in evaluating the influence of family *structure* and *function* upon individual motivation. In terms of the etiology of behavior, a number of writers deemphasize (and some even ignore) the impact of indi-

LA FAMILIA



vidual differences, of different patterns of family interaction, and of differences across the various SSSS groups. For example, many SSSS fathers adopt a patriarchal style. If, however, one encounters a SSSS father who is *not* patriarchal, this deviance does *not necessarily* denote psychopathology. That decision would have to take into account such factors as the possible adaptiveness of the unexpected behavior.

Another characteristic of the SSSS is strong adherence to the tradition of an *extended family* system. Details will not be repeated here since they are covered in other sections. A basic point which must be stressed, however, is that in response to trouble a SSSS may *not* refer himself to an Anglo institution which he perceives as "alien." He is more likely to seek solace from the extended family; he may ask and receive advice, support or other kinds of help from a cousin, an uncle, or a *compadre.* Other options include returning to his old neighborhoood to chat with friends, seeking companionship in the barrio, or returning to Mexico or Puerto Rico to be among his family.

Recourse to members of the extended family, friends, or just old familiar settings may denote a certain degree of pathology among some ethnic groups, but it does not have the same meaning among the SSSS. On the contrary, not only is such behavior likely to occur among the SSSS, it may be one of the most adaptive responses to stress. Furthermore, when interaction with the family is involved, one is well advised to exercise caution in imputing underlying emotional conflicts or psychological problems. A male SSSS who visits his mother regularly, for example, cannot legitimately be accused of manifesting "Oedipal involvement." Such behavior within the context of the SSSS culture is interpreted as *appropriate* and *expected* filial devotion. In fact, to behave in an emotionally aloof fashion towards one's mother might be even more indicative of some serious psychological deficiency.

There is a corollary of the extended family system which merits special mention. It has been noted that a number of non-SSSS patients demonstrate a "flight into health," or a dramatic amelioration of symptomatology when treatment programs are initiated or when psychiatric hospitalization is implemented. One interpretation of this phenomenon is that the patient is relieved to be removed from environmental stress and feels more secure once he is protected from his own impulses. A few writers have observed that the reverse sometimes occurs among SSSS patients. In this context, some have described the onset or exacerbations of symptoms of the "paranoid" type. Several factors seem to be operating. Hospitalization for some SSSS may represent an intense exposure to another Anglo institution: The SSSS is exposed to yet another situation in which there is increased likelihood for rejection, hostility, and prejudice. For many SSSS, hospitalization may also represent removal from a source of comfort, the extended family. And the stress induced by the very fact of hospitalization contributes further to the observed suspiciousness in a SSSS patient.

A complicating factor in considering the influence of the extended family tradition among the SSSS is that the tradition may be changing. Certain trends are transpiring in the United States which suggest that strong family ties among the SSSS are weakening and will continue to weaken (Fernandez-Marina, Maldonado-Sierra, and Trent 1958; Ramirez 1967 and 1969; and Ramirez and Parres 1957). Perhaps the major impetus for this trend is the fact that the SSSS are shifting from being a traditional rural-agricultural people to urban-industrial workers. The same general trend can be seen in the apparent decrease in the percentage of SSSS working as farm laborers, and particularly as migrant laborers. It is estimated, for instance, that at least 80 percent of the Mexican Americans are urban dwellers; and estimates are even higher for the Puerto Ricans. As the SSSS move from rural areas where tradition is emphasized more than in the cities, they tend to lose some of their older customs. With greater acculturation and assimilation, they will rely less upon the extended family for help in times of stress. It should be mentioned, however, that Carlos and Sellers (1972), in an analysis of the literature on family, kinship structure and modernization in Latin America found that the model of a waning familial influence and gradual disorganization and disintegration of large family groups was not true. Whether the same will hold true for the SSSS in the United States remains to be seen.

Authorities note that sex roles among the SSSS tend to be more clearly defined than in other cultures. We shall use Madsen's language to describe ideal role models for Mexican Americans of south Texas (1964 and 1969), but these ideals are very similar for Puerto Ricans (see especially Geismar and Gerhart 1968; Maldonado-Sierra, Trent, and Fernandez-Marina 1960; and Rogler 1968). Males from SSSS groups are described in terms of these ideal attributes: proud, dignified, reliable, vengeful (when dishonored), and controlled. Ideally, women are perceived as sexually pure; but pragmatically, they are seen as generally defenseless and particularly vulnerable to seduction by the sexually attractive and powerful SSSS male. Compared to men from other cultures, SSSS men appear to exploit and dominate their wives and to coddle and overprotect their daughters. These husbands and fathers expect women to respond with passive compliance.

Based on the assumption that cultural isolation is on the wane, one may predict that these traditional sex roles are changing and will continue to change. For one thing, Anglos and SSSS are being exposed to each other more and more, through military service, through a steady decline in educational segregation, and through changes in housing patterns and employment. Furthermore, there is a national exodus from farm to city; and as already noted, the SSSS are moving right along. At another level, there are political and social movements for greater personal freedom and self-expression which will alter sex roles, especially of the "submissive" female; the Women's Liberation Movement and the *movimientos* of the Chicanos and the Puerto Ricans, are examples. The key point then becomes this: In evaluating psychopathology, one must consider the interacting influences of subcultural membership and traditional sex roles, all in the context of the *ethos* of social change at the national level.

Despite certain common features, the Mexican-American family differs from the Puerto Rican family. In the discussion that follows, each will be described as a unique social unit.

Much of the research on Mexican-American families begins with references to earlier work by Mexican scholars on the Mexican family. Typically, these studies are described as an attempt to define a "national character." Unfortunately many of these studies on both Mexican and Mexican-American families are seriously flawed. Some studies lack control groups, others ignore significant variables such as socioeconomic status in generalizing findings on family structure, and some neglect to describe with any precision how data were collected.

There is, however, another set of criticisms which are equally telling (some of these points are discussed by Murillo 1971). Whether stated or not, a significant number of these studies rely very heavily upon psychoanalytic theory to generate hypotheses and/or to explain their findings. The problem with the psychoanalytic approach is that often there is an absence of empirical research, a preponderance of speculation concerning child-rearing practices and intrafamily interactions, and their concomitant influence on personality development. Instead of an objective analysis of SSSS families, then, we find a number of studies which appear to be trying to indirectly validate psychoanalytic theory. Moreover, the Mexican and Mexican-American family is often described in the literature in pathological or maladaptive language because the family does not conform to the psychoanalytic model.

To illustrate how unstated assumptions influence direction and outcome of research, consider a study by Ramirez and Parres (1957). These authors seek to identify a prototype of "the Mexican Family." Data are generated from records of a children's hospital and a mental-hygiene clinic. "Depth understanding" of the family comes from observation of 11 patients in psychoanalytic psychotherapy. Conclusions with adverse implications are presented; for example, 26 percent of these relationships are common law and 32 percent of the fathers are physically absent from the home. Scant attention is paid to the fact that these subjects may have developed pathological life styles (e.g., are mental-hygiene-clinic patients and/or are in intense treatment), while others are probably experiencing extreme stress (i.e., are bringing their children to the hospital).

Peñalosa (1968) reviews much of the literature on the Mexican family as a means of providing deeper understanding of the Mexican-American family subsequent to acculturation to the United States. His conclusions are typical of those reached by other authors writing about SSSS families.

With regard to relationships between men and women, Peñalosa suggests that marital status is essentially irrelevant to the social life of the male, but critical for the female. This statement means that men come and go as they please, whether single or married. Single girls are chaperoned in their parent's home, while married women remain in their own home to care for the children. This discrepancy is possible, according to Peñalosa, only because both sexes are firmly convinced of the intellectual, biological, and social superiority of the male. Boys are reared with ambivalent attitudes of veneration and resentment toward their mothers, and when they become men, these attitudes influence their relationships with women. There are "good" girls who are chaste, relatively uninterested in sex, and are potential wives. In contrast, there are "bad" girls who are sexually available, enjoy sex, and are potential mistresses (but never wives). Thus, some men drift into a situation in which they may support two households, complete with spouse and children, one legitimate and the other not.

At least three articles concur with the major conclusions drawn by Peñalosa. We shall cite each and identify only those conclusions that the authors provide in detail. Staples (1971) emphasizes that during adolescence Mexican-American boys are provided much greater freedom than girls. He makes the point that this is perfectly consistent with the subcultural assumptions that men are "superior" to women and that women "should" lead more sheltered lives than men. He adds, but fails to provide corroborative data, that the delinquency rate is much lower among Mexican-American girls as a result of familial protection. Another point made by Staples is that the wife typically depends upon the husband to maintain discipline in the home. Thus, in the absence of the father, "severe problems" are created (p. 189).

The two articles by Ramirez (1967 and 1969) are important because they are among the few which generate empirical data. His findings suggest that young Mexican-American men and women (ages 18 to 24) are beginning to reject the traditional Mexican concept of masculine superiority. Concurrently, both men and women are less insistent upon the strict separation of sex roles. Both sexes agree, however, upon submission to authority and relatively strict child-rearing practices, compared to a control group of Anglo subjects.

Ramirez (1967) also compares his findings to two earlier studies conducted with Mexicans (Diaz-Guerrero 1955) and Puerto Ricans (Fernandez-Marina, Maldonado-Sierra, and Trent 1958). These comparisons are shown in table 3-1. The comparisons are interesting because they highlight the differences in sex roles and child-rearing practices among the three SSSS subgroups.

What is most apparent from table 3-1 is that the Puerto Rican subjects appear to be more traditional concerning sex roles than the Mexican Americans sampled by Ramirez. Again, this comparison must be made cautiously since there is a difference of 9 years between the Ramirez and Fernandez-Marina et al. studies, and in the ensuing time period the attitudes of Puerto Ricans may have changed.

Additional information concerning the Puerto Rican family comes primarily from two studies. One by Maldonado-Sierra, Trent, and Fernandez-Marina (1960) describes "traditional family beliefs" in terms now familiar; there is absolute obedience toward the father, self-sacrifice by the mother, the doctrine of male superiority, a double standard of sexual morality, and segregation of the sexes. Data are presented indicating a negative correlation between belief in this tradition and psychopathology. The significance of this finding is enhanced by the fact that data collected by others and reported by these authors (p. 237) indicate a *positive* correlation among Mexicans. As the authors recognize, however, their findings must be generalized with caution to the entire Puerto Rican group since their particular sample is skewed in the direction of more education and higher family income.

Geismar and Gerhart (1968) present data on three samples of Negroes, Anglos, and Puerto Ricans, all of whom are young urban dwellers. Data were collected in an interview lasting 2-3 hours with each mother. The Puerto Rican groups had the highest percentage of foreign born (100 percent men, 79 percent women), and the largest number of members in the lowest socioeconomic classes. With regard to "level of family functioning," 46 percent of the Puerto Ricans were rated "problematic" or "near problematic," compared to 66 percent of the blacks and 16

Table 3–1. Percent of "Agree" and "Yes" responses of Mexican Americans, Anglo-Americans, Mexicans,[1] and Puerto Ricans[2] to some Mexican Family Attitude Scale items.[3]

Item	Mexican American Percent "Agree"		Anglo-American Percent "Agree"		Mexican Percent "Yes"		Puerto Rican Percent "Yes"	
	M	F	M	F	M	F	M	F
Mother is dearest person in existence	73	70	35	42	95	86	84	89
The place for the woman is in the home	23	19	22	16	91	90	81	77
Men are more intelligent than women	14	7	10	5	44	23	64	16
The stricter the parents, the better the child	87	89	14	12	41	44	12	6
Men should wear the pants in the family	72	68	55	47	85	78	81	65

[1] The results for the Mexican sample were taken from Diaz-Guerrero (1955).
[2] The results for the Puerto Rican sample were taken from Fernandez-Marina et al. (1958).
[3] Taken from Ramirez (1967).

percent of the whites. More refined analyses of these data led to the conclusion that breakdown in family function is due to socioeconomic factors (not just income level, but status and stability of employment), rather than *to the* structure of the family, per se. Unfortunately, cell sizes are so small in some instances that this conclusion must be accepted with caution.

By now, the reader is familiar with the SSSS family structure in general and that of the Mexican American and Puerto Rican in particular. Now we shall compare these two SSSS subcultures on a single point to illustrate the subtle complexity involved in making inferences concerning psychopathology. According to Peñalosa (1968), in the Mexican-American family younger brothers defer to older brothers because of the respect generally acceded to *anyone* who is older. But after marriage, "sister-sister relationships . . . tend to be closer and longer lasting than brother-brother" (p. 687). Within Puerto Rican families, at least according to Maldonado-Sierra, Trent, and Fernandez-Marina (1960), males *typically* turn to the older brother for solace and counsel. In other words, a Mexican American *might* turn to an older brother for help in times of stress, but a Puerto Rican male would be *expected* to. One can immediately grasp how ignorance concerning such a subtle distinction might lead to an erroneous imputation of pathological dependence. The reader is reminded again of the firm agreement among workers concerning a stereotyped conception of the SSSS family. Despite this agreement, the amount of corroborative data is sparse, and the conception must therefore be considered dubious.

Of the studies reviewed on the family only Rogler and Hollingshead (1965) and Rogler (1968) have asked the question of whether mental illness (in this case, schizophrenia) results in a disorganization of the SSSS family. In their comparative study of 20 Puerto Rican families where either the husband and/or wife was schizophrenic with 20 matched families where neither spouse was schizophrenic, Rogler and Hollingshead found that family disorganization occurred when schizophrenia was present in the wife or in both partners. Rogler and Hollingshead attribute this to the sex role differentiation of husband and wife in maintaining familial organization. The male's role stipulates that he spend long hours away from the home in support of his family while the woman's role dictates that she remain in the home caring for the household and family. When the husband then becomes schizophrenic the woman continues to maintain the household, and she also assumes the role of providing for her husband and children. When, on the other hand, the wife becomes schizophrenic, the husband, unaccustomed to finding the home disheveled and chaotic, reprimands his wife. In response, the wife often retaliates until ultimately the husband withdraws from the home — leaving it in chaos and without support.

The importance of these findings to this review are best summarized by Rogler (1968) who states:

> . . . we need to know how roles are modified as the family confronts problems and how social control in the family operates as each person tries to change or reinforce the deviant or customary behavior of his partner . . . We need . . . to develop field techniques for measuring those explicit and implicit interpersonal arrangements and processes that define the family as a social institution. [p. 135]

Personal Life Style

In this section we will comment on only a small number of personal characteristics of the SSSS which are well documented, and which have not already been discussed above.

First, there is the term *machismo*, which translates figuratively as "assertive masculinity," and which has achieved broad acceptance as the label for this type of behavior among SSSS men. The term connotes — and this connotation is consistent with many descriptions of the SSSS character type — a latent capacity for violence, sensitivity to insult or affront, and a tendency to manifest male superiority and dominance through multiple sexual conquests.

An apt description of the *macho* is given by Rogler (1968), who states:

> To act like a *macho* the man must make the appropriate response to a variety of challenges. A sexual opportunity must be used. During sexual intercourse, the man must sustain his desire and capacity beyond those of his partner. Physical courage is stressed. A man must not weep if injured. An affront from another man . . . requires the restitution of honor, often through retaliation. [p. 132]

Now let us reevaluate the possibility of psychiatric misdiagnosis in the light of these observations concerning personality. In this context, domination and exploitation of women by men are not necessarily indications of psychopathology on the part of either. Furthermore, a SSSS male who prefers the company of other men, who drinks a "little too much," and who displays "Don Juan" characteristics may be manifesting his "machismo" rather than rebelling against some "latent homosexuality." Such behavior among other groups may imply that the male has an "inferiority complex," or that the female "needs to be a martyr." Such is not necessarily the case among the SSSS. For instance, Batt (1969) has recently attempted to analyze the Mexican character according to an Adlerian interpretation emphasizing inferiority and compensation. Although the analysis is interesting, it fails to delve into the cultural expectations of the SSSS social roles and thus is of little value in understanding the dynamics of the SSSS personality.

Many commentators use the *machismo* label in "explaining" patterns of assertiveness and dominance among SSSS males. Despite this consensus of use, workers have neither agreed upon a verbal definition of the construct nor determined which specific behavioral referents may serve as an objective test of its validity. These points will be expanded in the concluding section which discusses recommendations for future research.

Before concluding our discussion of normative behavior the research of Fabrega and his group (Fabrega and Wallace 1968; and Fabrega, Swartz, and Wallace, 1968a and b) must be summarized. Fabrega's investigations indicate that *degree of assimilation* among the SSSS influences severity of psychopathology among psychiatric patients. In arriving at this conclusion, Fabrega compared the extent to which Mexican-American patients and nonpatients subscribed to a value system which was either "nontraditionalistic" (i.e., reflecting assumption of Anglo values), "mixed or intermediate," or "traditionalistic" (i.e., reflecting Mexican-American values). Findings indicated that 50 percent of the nonpatient group accepted the value system of *either* culture, but that only 22 per cent of the more disturbed patient group responded in this manner. The inference is that the *transition* from one culture to another produces a condition of marginality which is stressful and thereby conducive to mental breakdown.

Aside from Fabrega's interest here, little attention has been given to the question of the role of cultural marginality as a factor in the psychological well-being of the SSSS. It would appear that, as the SSSS become more acculturated to mainstream Anglo value systems, questions of marginality will be of extreme importance in an understanding of SSSS personality.

Future Needs and Recommendations

The guiding principle behind this section has been to identify behavior which is "normal" among the SSSS, but "abnormal" among other cultures. The purpose of this discrimination is to minimize diagnostic errors among mental health professionals when they evaluate the SSSS. This problem of identification, however, is not as simple as it sounds.

The obvious approach is to list and compare "normal" and "abnormal" behaviors among many cultural and ethnic groups. This enumerative approach seems unprofitable, however, because the general question of what constitutes deviance has not been resolved. The reason is that acceptable models of normality and abnormality have yet to be developed (Wrenn and Ruiz 1970). For an interesting discussion bearing on the distinction between normalcy and abnormality the reader is referred to Scheff (1966 and 1967), Szasz (1961 and 1970), and Ullmann and Krasner (1969).

As an alternative approach, this section has attempted to identify behaviors which denote deviance among Anglos, but which may possess different meaning among the SSSS. We shall now review some of the points made above and recommend questions for additional study.

First, there is the question of what constitutes *variant belief systems* among some ethnic minority group cultures. We have seen that among some SSSS, "hearing voices" is *not* necessarily synonymous with auditory hallucinations. Belief in myths, folk medicine, and even bewitchment and witchcraft do *not* necessarily denote delusional thinking. The point was made that other cultures adhere to "false beliefs" (Santa Claus), or "witchcraft" ("Step on a crack and break your mother's back!"). But such beliefs are not routinely interpreted as demonstrating need for mental health treatment when the person making the evaluation shares the belief system. The same inference, then, applies to the SSSS.

What kinds of research do these observations suggest? Perhaps a multidisciplinary approach would provide maximal information. Cultural anthropologists are trained in the kinds of field-survey techniques which yield insight into the frequency of occurrence and the social meaning of such behavior. Sociologists can provide demographic correlates. Clinical psychologists, social psychologists and some transculturally oriented psychiatrists may help explain the variables which underlie the initiation and continuation of such behaviors. Such explanations might vary from one extreme to another (e.g., a psychodynamic formulation such as psychoanalysis vs. a behavioristic analysis based on reinforcement theory). The administrative talent necessary to integrate such a grand proposal would be enormous. Nevertheless, the potential yield of information seems equally large.

The second broad area concerns recommendations for empirical research on the SSSS family. As we have suggested, the widely held myth of the "typical" SSSS family has not yet been validated. Are SSSS fathers "really" patriarchal, aloof, convinced of their superiority? If so, how does such behavior contribute to their personal adjustment and to the psychological development of their children? These are kinds of questions we need answered.

Once specific elements of the SSSS family are identified, these should be studied more closely. For example, the research review reveals that the extended family is a source of support to which the SSSS turns in time of stress. Thus, it is erroneous to infer psychopathology such as dependence, passivity, or immaturity because some SSSS seek family counsel during periods of crisis. On the contrary, such behavior should be viewed positively as adaptive, anxiety-reducing, and problem-solving.

Several research methods and strategies merit exploration. It would be helpful to learn the kinds of problems SSSS share with their families, the types of solutions which emerge, and the identification of resolutions which are successful. If, for example, such an analysis should reveal that certain types of personal problems are treated more successfully by "extended family consultation" than by traditional treatment methods, then the appropriate referral becomes obvious. An innovative treatment method which could emerge might involve selected members of the extended family offering support, counsel, and advice — possibly in collaboration with mental health professionals.

There is a possibility that the traditional pattern of recourse to the extended family may be breaking down due to variables associated with urban living and other pressures for social change. Such an observation dictates a recommendation for research of a longitudinal nature to keep abreast of changes as they occur. This recommendation is not only relevant to study of the extended family, but also to several other variables discussed below.

The third area concerns sex roles. Although there is some validity to the belief that masculine and feminine roles are more clearly delineated among the SSSS, there is a danger that the rigidity of these roles has been exaggerated. Sex roles may be gradually becoming more similar among the SSSS, as they are within the larger American society (viz., the "unisex" phenomenon in clothing, grooming, and behavior). Another observation is that most of the research findings are based on groups of native Mexicans, Mexican Americans and in a few instances, Puerto Ricans. Thus, there is the danger of overgeneralization from these samples to the entire SSSS population.

For reasons stated earlier, one recommendation is for research designs of a longitudinal nature. Second, we need data from all SSSS groups before broad generalizations are attempted. Finally, the point should be obvious by now that mental health professionals must be informed of sex role differences before rendering verdicts concerning psychopathology among the SSSS. This will be expanded in a concluding recommendation.

One specific aspect of the male sex role which warrants further consideration is *machismo*. A dispassionate review of the literature indicates that most observers grant validity to the construct. Evaluation of this same literature suggests, however, that this stereotype may have been exaggerated. Although the SSSS male is "different" from males from other cultures, he cannot be accurately characterized as compulsively asserting his dominance over men by aggressive violence and over women by sexual seduction. The point has already been made that those who attempt to characterize *machismo* agree in their verbal descriptions, but they have yet to define the term using behavioral referents which permit empirical test. Thus, we are left with a theoretical construct which seems to make sense (i.e., it has face validity), is probably overused as an explanatory mechanism, but cannot be validated according to traditional methods of experimental test. Obviously then, this is a research problem of high priority. If we continue to use *machismo* as an explanatory construct we must insist that it meet the traditional criteria of science. We must insist upon rigor in its definition and use.

Now consider the question of *machismo* in the assessment of psychopathology manifested by a young, direct, and assertive SSSS male. Suppose that during a routine intake interview, this young man relates that he recently assaulted a police officer because he felt his honor and dignity had been challenged, and therefore he needed to defend himself. Suppose further that certain characteristics of a psychological evaluation of this same patient reveal a pattern of responses associated with "acting out" behavior, poor impulse control and "excessive" aggressiveness. Now several questions emerge. To what extent do these behaviors represent psychopathological processes? Antisocial motivation? Intrapsychic conflict? To what extent are they maladaptive or abnormal? Stated conversely, to what extent do these behaviors reflect normal and expected subcultural values?

Before proposing means of answering these questions, a related topic will be introduced. There seem to be a number of "emotional" behaviors characteristic of SSSS which occur less frequently among males of other cultures. SSSS men appear more "open" in their expression of emotion and seem to demonstrate extremes of joy and anger more freely. Furthermore, affection toward other males is expressed casually, routinely, and without embarrassment by handshaking, an embrace upon meeting (*el abrazo*), and frequent touching during conversation. The point should be clear that if such behaviors are elicited during a mental health evaluation, they should not be misconstrued as denoting "lability," "cyclothymia," or "latent homosexuality."

Research is necessary to determine whether patterns of test responses which predict a given type of behavior in the majority culture may be applied in the same "cookbook" fashion among the SSSS. Basically, what is needed is actuarial research with particular attention given to responses elicited from minority group members. It goes without saying, of course, that special effort must be expended to communicate whatever new findings are generated to the appropriate mental health professionals.

One final comment seems warranted concerning the impact of assimilation upon severity of psychopathology. There are data suggesting that SSSS who retain their cultural values *or* ascribe to the new value system of the majority culture manifest less psychopathology. One interpretation is that cultural transition per se is stress inducing. An alternative proposition, however, may be that certain personality variables (i.e., personal assets and liabilities) dictate whether an individual decides to initiate the process of assimilation. Either possibility, of course, is amenable to empirical test. The basic issue seems to be that a relationship has been demonstrated between assimilation and psychopathology, but the intervening variables remain obscure in their effect.

One strong recommendation implied throughout this chapter and discussed thoroughly in the preceding chapter will be repeated here for emphasis. The SSSS individual is both "different from" and "similar to" members of the majority culture. Additional research is needed to identify these differences and similarities, particularly as they relate to the evaluation of psychopathology among psychiatric patients. Finally, this information must be transmitted (in various ways described earlier) to mental health professionals to minimize diagnostic error and to facilitate more appropriate treatment planning.

4

PSYCHOLOGICAL TEST ASSESSMENT

The second chapter of this review established the woeful inadequacy of the delivery of mental health services to the Spanish speaking, Spanish surnamed (SSSS). In the third chapter on normative behavior it was argued that inadequate mental health delivery systems are due in part to diagnostic errors based on evaluative interviews conducted by mental health professionals who lack familiarity with SSSS patients and their respective subcultures. Here the major thrust will be to critically review studies which suggest that similar diagnostic errors can arise from the unsophisticated use of formal assessment devices, such as psychological tests. The review here will be confined to tests of personality; the general topic of intelligence and achievement testing will be discussed in succeeding chapters.

The most recent frequency count cited by Buros (1970) indicates that 18,330 references related to personality assessment have appeared since 1938. A current search of this literature pertaining to the Spanish-speaking population in the United States, however, indicates that only 14 of these articles specifically describe the performance of Spanish-surnamed subjects on personality tests. But half of these are only tangentially related to the topic under discussion. Two, for example, report research in Spanish on Puerto Rican subjects. In the first, Miranda de Jesús and Cordova (1964) found that 1st-year university students in Puerto Rico are better adjusted psychosocially than a secondary school population. In the second, Rodriguez and Kimmel (1970) obtained results from the Pensacola Z Personality Scale which showed that a smaller discrepancy exists between the real-self and the ideal-self for Puerto Rican college students than for a U.S. sample. The authors attribute the difference to the cultural flux found in Puerto Rico.

Of the other tangentially related articles, one deals with an adult criminal population (Fisher 1967) and two others with delinquent adolescents (Roberts and Erickson 1968 and Swickard and Spilka 1961). One paper compared English and Spanish editions of an anxiety inventory and reports psychometric data (Mote, Natalicio, and Rivas 1971). The seventh paper failed to confirm the hypothesis that the development of responsibility among children is independent of race (Zunich 1971).

Projective Tests

It is clear that the interpretation of personality-test responses from SSSS subjects is based on an implicit assumption that this group is somehow "no different" from the majority group. The same assumption implies that subcultural differences exert minimal influence upon personality test responses; therefore, "unique," "unusual," or "atypical" response patterns elicited from SSSS subjects would have the same meaning as they would among subjects who are not of Spanish origin. That is, such patterns would be interpreted as representing some form of individual deviance (e.g., "psychopathology"). For example, a percept on the Rorschach such as "the evil eye" would ordinarily raise questions about paranoid ideation; however, among some of the SSSS subgroups who subscribe to beliefs in folk magic (Kiev 1968) this percept may have a more benign connotation. Our purpose here will be to evaluate this assumption in the context of the limited amount of relevant empirical data. It is further the intent to offer recommendations for the improved use of assessment techniques so that culturally sensitive interpretations may follow when one is working with a Spanish-surnamed population.

The earliest two articles report work on the Rorschach (Kaplan 1955 and Kaplan, Rickers-Ovsiankina, and Joseph 1956). In both studies, Rorschach performance was compared between two subcultural groups which possess more "cultural integrity" than two other groups who were more acculturated to the larger society (i.e., Navaho and

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Zuñi vs. Mormons and Spanish Americans). On the assumption that veterans will have had greater exposure to the majority-group culture than nonveterans (i.e., are more acculturated), these four groups were also subdivided on the basis of military experience.

Several reservations must be stated concerning the first study before citing conclusions. The original developers of the Rorschach seemed to assume the instrument was "culture-free," in the sense that it could presumably provide insight into an individual's personality structure which was "uncontaminated" by culture- or ethnic-group membership. Kaplan (1955) rightly rejects this notion and uses the instrument in an effort to detect precisely these kinds of differences. The problem with his approach comes in interpretation. If and when differences appear, there may be some difficulty in determining whether they are due to individual personality, culture-group membership, personal experiences with the majority group, some other extraneous variable, or the interaction of all the factors. An equally significant criticism is that the assumptions underlying the selected statistical test of significance were probably not satisfied. Analysis of variance requires that scores be independent, but Rorschach scores are intercorrelated.

Despite these reservations, the data *suggest* that more acculturation through military experience influences Rorschach performance. Specifically, veterans perceived "human movement" with greater frequency and relied more often upon "color" to explain their percepts. It is suggested, with appropriate caution, that these differences may reflect more creativity and extraversion among veterans from these culture groups.

The second study (Kaplan, Rickers-Ovsiankina, and Joseph 1956) is more relevant to our discussion. From the pool of multicultural Rorschach protocols described above, the authors selected records of six veterans from each of the four culture groups. Two judges performed a series of sorting tasks with the 24 records. One judge, who knew which cultures were represented and who had had personal experience with all four, achieved considerable success in sorting Rorschach records into the correct cultural groups. The judge who was only informed that the Rorschach protocols could be sorted into distinct categories without knowledge of the groups involved was unable to sort the records into meaningful cultural groups. On the basis of this finding, plus others not included in this review, the authors conclude that they have provided modest support for the idea that cultures manifest "modal personality" patterns. Rorschach responses from one Spanish-speaking group are "unique" and "homogeneous" enough to be discriminated from one Anglo and two Indian groups.

The reader should be cautioned against unequivocally accepting these findings since Kaplan et al. state in their discussion of the results:

> . . . the only systematic difference that is striking to us is the apparent lack of involvement and motivation for outstanding performance on the part of many Spanish-Americans . . . the Spanish American subjects appeared not to be more than superficially involved, and were not attempting to give more than a minimum number of responses to the tests. [p. 179]

This "lack of involvement and motivation" raises additional problems of interpretation. To what extent was the Spanish-American culture correctly identified on the basis of decreased frequency of percepts? And why were these Spanish-American subjects motivated to respond in this fashion? One possibility is decreased verbal fluency, another is lack of interest in the task, and there are doubtless other possible explanations. The problem is that we cannot evaluate whether fewer Rorschach responses in this case reflect a common cultural trait, individual personality differences, or just indifference toward an examination procedure perceived as meaningless.

With these reservations in mind, we shall proceed to a subsequent study of Rorschach and Thematic Apperception Test (TAT) responses from Negro, Mexican-American, and Anglo psychiatric patients (Johnson and Sikes 1965). In this study Johnson and Sikes compared the responses of each group's 25 subjects, who were matched for age, educational background, and occupational levels.

Numerous statistically significant differences appeared between groups. The most distinct differences on the Rorschach appeared on the measures of hostility. The Mexican-American group was high on "Potential Hostility" while the Negro subjects were high on "Victim Hostility." Interesting group differences emerged from the TAT.

Among the most clear-cut differences were those related to "family unity." Mexican Americans consistently viewed the family as unified. Further, the Mexican-American group clearly differed from the other groups in mother-son and father-son relationships. Mexican Americans consistently described the mother as nobly self-sacrificing and the father as authoritarian and dominant.

The major finding of the Johnson and Sikes investigation which is of interest here is that Mexican-American patients manifest a unique pattern of responses to both projective devices.

Objective Tests

A unique response pattern among Mexican Americans was also found by Mason (1967) in a study employing the California Psychological Inventory (CPI), an *objective* personality inventory rather than a projective technique. Subjects were 13- and 14-year-old American-Indian, Caucasian, or Mexican-American disadvantaged junior high students participating in a summer educational enrichment program. It is beyond the scope of the review to attempt to cite all the significant findings which emerged from the statistical analyses. Suffice it to note that Mexican-American males and females manifested response patterns which were different from each other, as well as being different from the performance of the other two groups. Of perhaps even greater relevance to this review is the observation that

> . . . the limited verbal facility of the present population necessitated modification of the usual administration . . . and . . . the test was administered in six separate sessions, allowing time for completion and opportunity for assistance with unfamiliar vocabulary. [p. 146]

To enable the reader to decide the validity of this type of test for the Spanish speaking, consider this quotation:

> . . . one Mexican girl initially responded to the item, 'I think Lincoln was greater than Washington,' by stating that she could not answer because she had never been there! [p. 153]

In a study of ". . . adjustment required by certain specified life-change events," (p. 128) Komaroff, Masuda, and Holmes (1968) compared the responses of Negro, Mexican, and white Americans on the Social Readjustment Rating Scale. Subjects were instructed to rate a total of 43 "life-change events" (e.g., "death of spouse," "divorce," "marital separation," etc.). Despite some significant sampling errors, such as overrepresentation of Negro and Mexican-American females, several highly relevant findings emerge. Although all three groups ranked the items in a similar fashion, the Negro and Mexican Americans were more like each other than the white-American, middle-income group. Examination of content indicates that both Negroes and Mexican Americans rated items relating to labor and income (e.g., "mortgage greater than $10,000," "major change in work responsibilities") as much more stressful (i.e., requiring greater readjustment) than did the white majority group. Komaroff et al. suggest that these differences occur because of impoverished conditions that American ethnic minority group members experience. The authors related this to the "culture of poverty" wherein the minority group members exist in a cash economy while they remain impoverished (Lewis 1966). Another finding is that Mexican Americans rate items such as "death of a close family member," "death of a spouse," or "major personal injury or illness" as *less* stressful than do Anglos or Negroes. The interpretation is that the Mexican tradition of the extended family offers solace which Anglos and Negroes cannot rely upon.

The final comment, and in some ways the most telling, about this study involves *communication*. Clearly referring to ethnic minority group subjects, the authors state that their questionnaire

> . . . as originally worded, contained some language which, in trial runs, was not understood by many of those asked to read and complete it. For this reason, the wording was simplified on certain items . . . . [p. 122]

Furthermore, subjects were

> . . . given a verbal synopsis of the instructions . . . rather than the written instructions such as had been given to the white American group . . . because many *S*s balked at having to read detailed instructions. [p. 123]

Once again, these points lead us to question the validity of a paper-and-pencil questionnaire for SSSS group members. Since some of these subjects are bilingual, the question remains unresolved even when oral instructions are substituted for written ones. Even the issue of equivalence of translation remains questionable in the absence of relevant normative standards (see the discussion on translation in the chapter on measurement of intelligence).

Fabrega and his coworkers, as part of a larger investigation of ethnic differences in psychopathology, administered the short version of the Holtzman Inkblot test to 19 Anglo-American, Mexican-American and Negro hospitalized schizophrenic patients (Fabrega, Swartz, and Wallace 1968). Unlike earlier studies, the results indicated that the projective data did *not* differ appreciably between the three matched patient groups. Nonetheless, ratings of psychopathology made independently by resident psychiatrists and nurses suggested that the Mexican-American schizophrenics were more clinically disorganized and regressed than the other two patient groups. Although Fabrega et al. do not explain this apparent discrepancy, they do suggest that the Mexican-American subjects in their study may have been "sufficiently acculturated to Anglo patterns and values to no longer show the projective responses typical of Mexicans" found in earlier investigations (see also Swartz 1967).

In a recent study, Reilly and Knight (1970) used the Minnesota Multiphasic Personality Inventory (MMPI) to investigate personality differences between freshmen with Spanish surnames and those without at a southwestern American university. Of 36 comparisons, several showed significant differences between the two groups. The Spanish-surnamed group scored higher on the L (lie) scale of the MMPI—a finding interpreted as suggestive of more strict moral principles or overly conventional attitudes. Similarly, the non-Spanish-surnamed group scored higher on the Pa (paranoia) scale, a result that was taken to indicate that they were more subjective, sensitive, concerned with self, and less trusting.

It was also found that Mexican-American males and Anglo-American females scored higher than their couterparts on:

- Pt (psychasthenia), indicating worry and anxiety;
- Sc (schizophrenia) reflecting social alienation, sensi-

tivity, worry, and the tendency to avoid reality by use of fantasy; and

- Si (social introversion), tendency toward introversion, modesty, and shyness.

Again caution must be exercised in accepting personality differences since Reilly and Knight themselves conclude that

> . . . a sophisticated interpretation of individual profiles should include consideration of the total pattern of scales within the context of other pertinent information about the individual . . . particularly . . . college students. [p. 422]

Future Needs and Recommendations

The first point, and the most telling, is the near absence of research on psychological assessment of the SSSS. Of more than 18,000 articles on personality testing (Buros 1970), there exist only two on the Rorschach, one on the Rorschach and TAT, one on the Holtzman Inkblot test, three on objective inventories, and seven of borderline relevance. Obviously, high priority should be given to researching assessment instruments with the SSSS.

As stated above, only limited empirical data are available on the performance of the SSSS on projective tests. Nevertheless, some broad inferences can be made concerning performance on projective techniques. For example, it might be assumed that no projective test can be considered "culture free" and that various SSSS subgroups can be expected to give unique responses to these instruments. This should not be misinterpreted as implying that projective test results from this subject population are grossly different from those elicited from Anglos. Rather, subtle differences probably exist — perhaps in content, style, latency, frequency, or other response variables which can conceivably lead to misinterpretation — and these cultural differences can be misconstrued as individual "assets" or "liabilities." Speculation aside, it is clear that well-controlled studies with SSSS subjects on a variety of projective devices are needed.

Just as one must be cautious in generalizing from limited research findings across tests, one must be equally careful across cultural groups. The reader is reminded that the studies discussed in detail examine responses from only one Spanish-speaking group (i.e., Mexican Americans). We cannot be absolutely certain without independent normative data that the performance of Mexican Americans is typical of all Spanish-origin groups (e.g., Puerto Ricans).

Let us consider the specific manner in which the SSSS appear "unique" in responding to the Rorschach and TAT. Because these points are so important, they will be repeated: The number of studies is small, there are none on other projective techniques, but even these few studies may give a hint of what to look for on the other projective devices.

As noted earlier, Kaplan and his coworkers indicate they are struck by ". . . the apparent lack of involvement and motivation among the Spanish American." These authors state that their subjects ". . . appeared not to be more than superficially involved, and were not attempting to give more than a minimum number of responses." Of major importance to us is that the authors recognize their inability to determine whether such a response pattern ". . . reflects personality characteristics . . . or . . . stereotyped attitudes in the culture." Thus data are available indicating that Mexican-American respondents are underproductive in terms of mean number of Rorschach percepts. It seems reasonable, therefore, to predict a similar response pattern on other projective tests (e.g., shorter answers on incomplete sentence test, shorter stories on thematic tests, etc). This suggests that the SSSS patient who is terse in response to projective tests may not necessarily be less bright, less fluent, or more "defensive."

The Johnson-Sikes analysis of Rorschach responses denoting attitudes toward hostility suggest that Mexican Americans feel ". . . secure, but yet, defensively on guard" (p. 186). Their analysis of TAT stories elicited from these same subjects indicate a ". . . more consistent view of the family as unified" (p. 187). In response to a picture depicting a mother and son (TAT:6BM), Mexican Americans typically describe a son leaving the mother while both experience sadness. In responding to these two projective tests, Mexican Americans appear to handle themes of anger and interfamilial relationship differently than do

Anglo or Negro Americans. Again, this conclusion may also apply to other projective tests and to other SSSS groups. Given these findings, diagnosticians using projective test data to infer psychopathology from Spanish-speaking patients should exercise caution since the relevant normative data have yet to be gathered.

Three studies which used objective psychological inventories were cited. As with projective tests, there is evidence that Mexican-American subjects, ranging in age from 13 to 80 years, respond differently to objective inventories than one might predict from normative data. The need for additional research is critical, but obvious, and is being repeated only to stress its importance. A second very significant conclusion emerges from these studies. Note that Komaroff et al. and Mason modify test instructions in order to create motivation and enhance communication. It is clear that instructions standardized on college sophomores or middle-class subjects are not appropriate for use with the SSSS. This observation is particularly critical because these tests were designed for use with "normal" subjects and were, in fact, used in this way. In other words, one may not argue that excessive stress associated with psychological or emotional problems disrupted test performance. Translations from English into Spanish may or may not be effective. Only additional research can answer this question (see the section on "back translation" in chapter on measurement of intelligence).

Now we return to the basic problem of assessing the severity of psychopathology among Spanish-surnamed psychiatric patients. Having discussed projective techniques and objective inventories, we shall focus upon the use of paper-and-pencil devices. We can outline research needs in broad terms on the basis of our general knowledge of psychological testing and of the Spanish-speaking group, but we cannot identify specific methods or designs because of the lack of empirical investigations using paper-and-pencil tests. The absence of these data is particularly critical since psychologists are going through a period of increased reliance upon such devices as a rapid, economic means of evaluating patients.

In many psychiatric clinics, the initial test evaluation of a new patient begins with the administration of some type of "basic battery" of psychological tests. In settings dealing with functional disorders, these batteries typically include some type of printed form eliciting biographical information, a "quick form" of some paper-and-pencil test of intelligence, an objective personality inventory (usually the MMPI), and a semiprojective measure of personality (e.g., one of the many available incomplete-sentence tests; or, less often, some type of human-figure drawing). A patient's performance on batteries such as these is critically important since it is used to determine whether treatment will be offered and if so, what type. For example, patients who obtain low IQ scores and who manifest limited verbal fluency would probably not be recommended for the type of intensive insight psychotherapy which provides skill in human problem-solving. And yet such a performance typifies what one would predict from a psychiatric patient who is Spanish speaking. Thus, while there is already some doubt about the adequacy of mental health treatment for the Spanish-speaking minority (Karno 1966, Kline 1969, and Phillipus 1971) there are also no data correlating performance on "basic batteries" with response to treatment.

Rather than issue another recommendation for "more research," let us attempt to specify more precise goals. Of course, appropriate normative data are necessary, using Spanish-surnamed subjects in the standardization group to ensure valid interpretation. In addition, certain kinds of sophisticated studies seem called for. Research is needed which compares test performance as a function of English and/or Spanish instructions. Careful attention must be paid to the wording of items, not only in terms of difficulty of reading level, but also with regard to ease of translation. Increasing reliance upon computer technology in the administration, scoring, and interpretation of psychological test protocols creates additional problems. A number of computer programs are available, for example, which print out psychological reports based on patient responses. Some of these programs, but not all, utilize actuarial approaches such as "code type" interpretation of the MMPI. Yet, none of these computer programs has norms specific to the SSSS. The thrust of all these observations is to emphasize the need for normative studies dealing with the *specific problem* related to the interpretation of basic batteries with the Spanish-speaking population.

5

MEASUREMENT OF INTELLIGENCE

The measurement of intelligence (IQ) is relevant to a review of mental health issues among the Spanish speaking, Spanish surnamed (SSSS) for several reasons. First, reports of intelligence test scores among the so-called "culturally disadvantaged," which usually means SSSS or blacks, consistently cite lower mean IQ scores. Second, American society has been described by a number of observers as "achievement oriented," with "success" usually defined as the acquisition of material goods and a subsequent rise in social status. Third, this type of success has traditionally been achieved through business, occupational, or professional advancement. Fourth, this kind of advancement is almost always predicated upon education extended beyond high school. Fifth, Americans are "test oriented," and predictions concerning success in school, even at the elementary level, are almost always based on some combination of intelligence and achievement test scores.

The SSSS person is locked into a vicious cycle which results in his inability to achieve and enjoy the fruits of American society because he performs poorly on measures used to predict academic success. Numerous studies have documented that among the SSSS the "dropout" rate from primary and secondary school levels is excessively high, as is the underrepresentation of the SSSS in occupations and professions requiring extended education. Partly because of these factors, surveys consistently report income figures significantly below national norms (see the introductory chapter of this review for confirmatory material taken from the 1971 U.S. Bureau of the Census report on the SSSS). Low achievement, reflected in low income, is another source of stress experienced by the SSSS. *And nearly all experts agree that cumulative stress* is a factor directly related to the development of mental illness.

Around the middle of the 19th century, Galton originated the idea of measuring intelligence. During that period, intelligence was assumed to represent some innate capacity. Soon after, however, Alfred Binet began to obtain actual measures from elementary school children in the Paris schools in a rudimentary effort to discriminate between the academically lazy and the mentally deficient. During this period of psychological thought and test development, one issue which preoccupied workers was the relative impact of heredity vs. environment on the intellectual capacity of the individual. Psychologists seized upon the "new" Binet tests, the subsequent Binet revisions at Stanford University, and other tests being developed as potential means of reconciling the controversy of whether intelligence was primarily determined by genetic endowment or environmental experiences. With this background in mind, let us examine the early period of research in intelligence testing among the SSSS, from about 1923 to 1940.

The Early Period of Testing: 1923 to 1940

An early paper by Garth (1923) is quaint; the language is dated, the figures are obviously hand drawn, and the assumptions are naive. Garth presents a study of "race psychology." Among other hypotheses, he proposes to test ". . . the principle that mixtures of different lines brings about differences in intelligence" (p. 388). To evaluate this assertion, he administered the National Intelligence Test to five "blood groups" representing varying degrees of white and Indian blood. One of the groups tested "represented the typical 'Mexican' whose ancestry is largely of Spanish blood and of various . . . nomadic tribes of Mexico" (p. 389). Although Garth's data do not warrant extended citation here because uncontrolled variables make his conclusions questionable, a few quotations are included to identify racist attitudes which characterized the efforts of some workers during that period. Garth tells us that because "social status and education have not been controlled, we may not positively state that these data indicate racial differences in intelligence" (p. 401). Nevertheless, the tenor of his position is revealed by a number of unqualified statements on intelligence, such as,

> . . . mixed breeds excel the pure breeds in intelligence scores . . . If these groups may be taken as representative of their racial stocks, the results indicate differences between their racial stocks in intelligence as here measured . . . one is inclined to believe that differences in . . . mental attitude toward the white man's way of thinking and living are here made apparent. [p. 401]

In a second article on the intelligence of "Mexican" children, Sheldon (1924) recognized the problem of testing bilingual children:

> . . . one school in this city was found to be devoted entirely to Mexicans, and here the children understood English very imperfectly. To overcome the difficulty . . . it was necessary that the children . . . be given the group tests by their respective teachers. These teachers were able to make themselves understood by the use of a sort of Spanish-English dialect colloquially called "spic", or a mongrel Spanish. [p. 140]

Despite the statement above, it is clear that Sheldon fails to recognize that this type of language difficulty, in and of itself, will depress IQ scores. Thus, Sheldon concluded that the average Mexican child in the first grade was 14 months below the normal mental development *for white children* of the same school grade.

In a lengthy monograph on the racial differences in the mental and physical development of Mexican children, Paschal and Sullivan (1925) noted that a simple translation of the Binet test into Spanish was not adequate "owing to the different connotations of supposedly equivalent words" (p. 6). Accordingly, they tested all of the Mexican 9- and 12-year-old children in the Tucson, Ariz., schools with six different performance scales. Upon comparing the mental test scores of Mexican children with the American norms, considerable overlap was found between the two groups for the top third of the distribution. But from the median downward the American children showed an increasing superiority. Perhaps more interesting was the fact that the difference between the two groups was greater at 9 years than 12. Paschal and Sullivan speculate that the greater difference between American children and the Mexican children at 9 years than at 12 years of age may be indicative of the relatively greater part played by the school in the mental development of the latter group.

Garth (1928) tested 1,004 Mexican children and compared their test scores with normative data from the National Intelligence Test. Lower mean scores support earlier findings of Sheldon. But in this article Garth does not acknowledge that the scores may be deflated because of language difficulties.

Two studies appeared in the same year using a draw-a-man test to measure the mental age of SSSS children. In the first, Manuel and Hughes (1932) found that at each age level between 7 and 10 years, Mexican children have mental age scores approximately 1 year lower than expected. In the second investigation, Davenport (1932) compared younger and older siblings of both Mexican and non-Mexican families. Mexicans scored lower than the non-Mexicans, but interestingly the older Mexican subgroup obtained *higher* IQ scores than their younger siblings.

These results were interpreted by Davenport to mean that the longer school attendance of the older Mexican children had significantly increased their level of intellectual functioning. Accordingly, Davenport cautioned:

> These findings, taken as a whole, point strongly to the conclusion that prognosis on the basis of the Goodenough I.Q. at school entrance is likely to underestimate the future abilities of the Mexican child. [p. 306]

In a subsequent report, Garth and Johnson (1934) argue that "Mexican children in the United States" are more like the American white (i.e., based on normative data) on the Otis Classification Test at the early ages, but less like them as they grow older in intelligence and achievement" (p. 228).

In a fourth study (Garth, Elson, and Morton 1936), it is reported that Mexican Americans are consistently inferior to white norms in verbal intelligence and achievement scores. They describe "rather startling" data which indicate Mexican Americans do as well as American whites on a nonverbal measure, the Pintner Non-Language Intelligence Test. They understate the obvious conclusion that "Such results suggest that the Mexican child in the U.S. is handicapped when he is tested with a verbal intelligence test" (p. 55).

The Garth papers are cited in the literature on intelligence testing among the SSSS with a frequency much greater than their substantive contribution would seem to warrant. To correct the possible misconception that Garth discovered significant new facts, let us summarize his three major contributions. First, the papers are among the earliest to study intelligence among the SSSS. What seems to have occurred is that workers who followed Garth had the option of citing his work or none at all. Second, Garth was one of the first to obtain relatively lower IQ scores among bilingual subjects. Third, Garth illustrates well the thinking of the time with regard to the nature-nurture controversy. He attempts to use group mean differences in IQ scores as corroborative evidence for the superiority of certain races, even while admitting that groups differ on such key variables as educational attainment and socioeconomic factors. He makes this attempt despite his recognition that intelligence test scores *cannot* be used as uncontaminated measures of genetic endowment since test items always include some degree of cultural bias.

Garretson's 1928 study illustrates how bias may lead to misinterpretation of data. He cites intelligence test data from children who are residents of a small Arizona town in which the major industry is copper smelting. He reports that the heads of Anglo households earn approximately \$125 – \$150 per month and that 25 percent are high school graduates. By comparison, "no more than 80 percent" of the heads of Mexican households are employed and their monthly income is estimated as \$110 per month. He also observes that it is "unusual" for a Mexican child to enter school with any knowledge of English. Despite these overwhelming socioeconomic and linguistic differences, he interprets lower group mean intelligence test scores among this SSSS group as confirming some type of deficiency in genetic endowment; for example, "the native capacity, if we assume that intelligence quotients are indicative of native capacity, of the Mexican pupil is less than that of the American child" (p. 38).

In a series of 40-year-old papers which retain their relevance even today, Sanchez (1932a and b; and 1934a and b) rebuts the interpretations of genetic deficiency with a combination of experimental research, demographic data, and theoretical argument. In the two early papers he identifies five factors which could underlie lower mean IQ scores among the SSSS and evaluates each; "(a) hereditary limitations, (b) inferior home environment, (c) language handicaps, (d) unsuitability of tests, and (e) lack of parallelism of conditions under which tests are given" (1932a, p. 223). A term used by Sanchez ("(b) inferior home environment") must be defined to minimize possible misunderstanding of what he meant. Both 1932 papers indicate clearly that this term refers *only* to socioeconomic deprivation and educational limitations (see Sanchez 1932a, p. 224 and 1932b, p. 551). In no way does the term, "inferior home environment," as used by Sanchez, even hint that the SSSS family process retards intellectual growth or achievement. He rejects the principle of racial inferiority because of the absence of any corroborative evidence. Furthermore, Sanchez (1934) demonstrates significant increases in mean scores derived from tests of intelligence and reading ability when alternate forms of these tests are readministered on four occasions over a period of approximately 16 months. Although the absence of a control group weakens his position, he concludes that the first test score elicited from SSSS children represents an underestimate and that factors (b) through (e) comprise the most reasonable explanation for this inaccuracy.

In his two 1934 papers, Sanchez makes several interrelated points. Even after 1 year of school, the average SSSS child is deficient in English vocabulary. Sanchez identifies some of these words and lists the frequency with which they appear on the 1920 Stanford Revision of the Binet-Simon tests. He also discusses how homonyms and word-usage differences in English can be confusing to the Spanish-speaking child. For instance, Sanchez (1934a) states:

> Such words as "like," "right," "kind," "get," and "look," used in the tests and commonly used with at least two different meanings, present serious difficulties to the child just acquiring a new vocabulary. Over and above this obstacle is the more nebulous, and consequently more trying, problem of the equivalence of concepts and of organized ideas . . . "picture" connotes *retrato* (portrait) to the Spanish-speaking child

> and . . . it is far fetched to call a drawing such as those used in the Binet tests a *retrato*. In a similar manner, "What is your name?" is expressed in Spanish by "What do you call yourself?" (*¿Cómo te llamas?*), while "How old are you?" is expressed "How many years do you have?" (*¿Cuántos años tienes?*) etc. [p. 400-401]

He criticizes the use of Spanish translations of tests since these were being applied without independent validation. His most telling criticism concerns the "failure . . . of the public school system" to provide "the Spanish speaking group . . . with a comparable education" (1932b, p. 769). He presents data indicating that in New Mexico, during the school year 1932-33, there were almost 25,000 SSSS school children enrolled in the first and second grades, but only 540 in the final year of high school. His point is that 2 percent of the SSSS school children got this far in school, compared to 14 percent of children from all other ethnic groups in the same State during the same period. Yarbrough (1946), discussed in another chapter, agrees with these criticisms. Both Sanchez and Yarbrough criticize an indifferent society which sacrifices public education and, thereby, prostitutes democratic values. Unfortunately, these criticisms remain accurate even today.

It is imperative that the reader grasp the full implications of the work of Sanchez. First of all, there is the man himself. He is a member of one of the largest SSSS groups in the United States and therefore is familiar with all the nuances of his own culture — language, family process, and socioeconomic conditions. Second, his education provided him with skill in the generation and interpretation of social science data bearing on achievement and education among the SSSS. Thus, he is eminently qualified to provide significant insight into research findings bearing upon the SSSS. Yet, although he identified problems and suggested resolutions *more than 40 years ago*, very little ameliorative work has been done. With the possible exception of the standardization of the WAIS in Puerto Rico (Green 1964 and 1969), little effort has been expended on standardizing a test of intelligence for a SSSS population. Thus, educators and psychometricians continue to make erroneous predictions based on IQ scores from the SSSS.

But Sanchez' conclusions are not the only ones which have gone unheeded. In two very similar articles Mitchell (1937) and Mahakian (1938) tested bilingual children on two forms of the Otis Group Intelligence Scale. A counterbalanced design was used by both investigators such that half of the children were administered the Otis first in English and then in Spanish; the other half of the children had the language order reversed. Both investigators reported that the bilingual children did significantly better when tested in Spanish rather than English. Mitchell and Mahakian report mean differences between the English and Spanish forms of 13.22 and 7.6 points with a range of 44 and 33 points, respectively.

Both authors conclude that intelligence tests administered in English to Spanish-speaking children are not valid. Numerous recommendations were offered by Mitchell and Mahakian for the proper assessment of intelligence among SSSS children. Mitchell, for example, suggested that a corrective factor be added to the intelligence test score of a SSSS child if tested in English to more accurately reflect his true level of intellectual functioning.

The preceding review of these early studies indicates that some workers used genetic inferiority to explain lower mean IQ scores among the SSSS. Even today, this principle is espoused among a small group of social scientists (e.g., Eysenck 1971, Herrnstein 1971; and Jensen 1969). Of greater importance than the nature-nurture controversy, however, is that some of the studies reviewed represent beginning attempts to identify with greater precision those environmental variables which depress scores on tests of intelligence. Even then, there was some limited recognition that IQ scores can be depressed by social, economic, political, and linguistic factors. Basically, much of the research published on testing among the SSSS from about 1940 on represents attempts to measure the relative influence of these and other variables upon test scores.

Intelligence Testing from 1940 to 1960

It is difficult to discern patterns from the scattered literature published between 1940 and 1960. Most authors try to deal simultaneously with a large number of confounded environmental variables, there are few instances of programmatic research, and the literature has little heuristic value. Thus, it will be necessary to skip from article to article and from issue to issue.

Shotwell (1945) compared the performance of 80 "Mexican" and "American" mental defectives on verbal (Stanford-Binet) and nonverbal (Arthur Performance Scale) tests of intelligence. Both groups scored higher on the Arthur than on the Binet test, but the Mexican mean was 22 points higher. To explain the obtained difference in test scores, Shotwell entertained two hypotheses. First, the Mexican American may be unduly penalized when intelligence is measured by verbal tests alone. The alternative hypothesis is that:

> It may be that Mexicans of a moron or borderline grade of intelligence have a special aptness along manual lines that is not found in Americans who are similarly retarded mentally. [p. 448]

Shotwell concludes by suggesting that additional research is needed before deciding between the two hypotheses.

One of the earliest reported attempts to enhance reading readiness among SSSS children of preschool age was published by Herr (1946). In this study a group of children who participated in a preschool program was compared with a control group of children who did not. Major results indicated that the mean IQ score (Pintner-Cunningham Primary Intelligence Test), of the children who participated increased almost 30 points whereas the mean IQ of the control subjects increased less than 10 points. These data, and much more than can be reported in a review of this type, indicate that " . . . pre-first-grade training is an important factor in success in learning to read among Spanish-American children" (p. 102). In terms of recommending programs of social change, we will reintroduce this study with its conclusions and implications in a final part of this chapter.

Altus (1945) describes an Army program designed to teach reading and arithmetic skills to six groups of functional illiterates including five different ethnic minority groups and one group of whites. The lowest correlations between Wechsler-Bellevue subtest scores and performance in the programs are found among Americans of Mexican descent. Altus observed that some subjects with scores in the "feeble minded" range not only succeeded in the program, but also had work histories indicating a successful life adjustment. He concludes, therefore, that this particular test of intelligence has minimal validity for prediction of these kinds of behavior (school and work) among members of this SSSS group. Altus' conclusion that different ethnic groups perform differentially as a function of the test used is confirmed by additional work on individual and group tests of intelligence, as well as by a measure of mechanical ability (Altus 1948).

In yet another article, Altus (1949) reports that:

> . . . of the personnel cards for all White trainees in the Center, it was found that exactly 48.1 percent of such trainees were either bilingual Americans of Mexican ancestry, speaking both Spanish and English; or non-English, Spanish-speaking trainees, mainly native to Mexico though a few came from the Central American countries. [p. 211]

In an analysis of four performance subtests of the Army Wechsler Scale (now known as Wechsler-Bellevue, II), Altus' data indicated that the Mexican who could not speak English — even if he had been born in the United States and had lived there all his life — was on the average duller than the foreign-born, recently arrived SSSS. Although Altus does not attempt to explain this rather interesting finding, he does speculate on the persistence of cultural and linguistic factors among American citizens of Mexican ancestry.

As with Sanchez, the work of Altus represents another case in which empirical data and valid inferences generated by a competent social scientist were published, cited with frequency in the literature, and generally ignored in terms of application. Even today we try to predict level of academic achievement based on test scores considered of questionable validity *almost 30 years ago.*

The sole attempt to establish norms based on a SSSS sample was provided by Ammons and Aguero (1950). These investigators tested four males and four females from grades 1 to 10 and ages 7 to 16 on the Full Range Picture Vocabulary test (FRPV) and on the vocabulary subtest of the 1937 Stanford-Binet. Forms A and B of the FRPV correlated .86 with each other, and .85 and .82 with the Binet vocabulary test. Of significance here was the finding that as subjects grow older, the discrepancy between scores on verbal and nonverbal tests also increases.

Carlson and Henderson (1950) argue that most studies comparing intelligence among different ethnic groups ignore too many factors which influence IQ. They identify: (a) rural vs. urban environment, (b) socioeconomic level, (c) total cultural complex, (d) quantity and quality of formal education of parents and students, (e) diet, (f) examiner prejudice, (g) motivation, and (h) bilingualism. Although they cite Sanchez (1934a), they fail to acknowledge that he made many of these points 16 years before. After an unsuccessful attempt to control as many of these variables as possible, the authors compared IQ scores of Mexican and non-Mexican children who were 5½ years and older. Unfortunately this study is inconclusive since, as Carlson and Henderson themselves acknowledge, they were unable to control for rural-urban background of parents, vocabulary level in English and Spanish, and a possible difference in motivation level between the two groups. Pointed criticisms of this study were made by Pasamanick (1951).

Cook and Arthur (1951) obtained mean IQ scores of 84 on the Binet and of 101 on the Arthur Point Scale of Performance from 94 migrant Mexican-American children in the area of St. Paul, Minn. Since this difference is highly significant, these authors argue that the Binet test is inappropriate and that low IQ scores do not, therefore, necessarily imply general mental retardation. The findings clearly point to the fact that there is a high degree of potential ability not tapped by the Binet test.

The earliest study using Puerto Rican subjects found a similar difference in IQ scores among this group of SSSS children when tested on the Pintner Verbal Test and the Pintner Non-Language Test (Darcy 1952). A mean difference of 8.28 points in favor of the nonlanguage test led Darcy to conclude that when testing bilingual children both verbal and nonlanguage scales must be used to obtain a valid estimate of the intelligence among the bilingual.

Although all the studies reviewed thus far have involved bilingual subjects, the first study in which *degree* of bilingualism was assessed was reported by Johnson (1953). In this investigation, the "Hoffman Bilingual Schedule" and a "Reaction-Time Technique" were used to measure bilingualism among 30 boys between the ages of 9 and 12 years. Intelligence was measured by the

Goodenough Draw-a-Man Test and the Otis Test of Mental Ability. The findings indicated a negative relationship between performance on the Otis, a verbal test of intelligence, and degree of bilingualism; more bilingualism was associated with lower IQ scores on the Otis test. On the other hand, degree of bilingualism was *positively* correlated with scores on the Goodenough test. Moreover, the discrepancy between the Otis and the Goodenough IQ scores was least among subjects who evidenced greater knowledge of English than of Spanish. Although earlier investigators had suggested that degree of bilingualism was correlated negatively with verbal IQ, this is the first study to actually document the relationship empirically.

The degree of bilingualism and its relationship to IQ scores is also discussed by Anastasi in two studies with SSSS children in New York City (Anastasi and Cordova 1953 and Anastasi and de Jesús 1953). Counterbalancing administration of the Cattell Culture Free Intelligence Test in English or Spanish, Anastasi and Cordova report that a marked improvement occurs from first to second testing, regardless of language. It was also found that girls performed better when the testing order was Spanish-English, the boys when it was English-Spanish. The investigators suggest that the order by sex interaction is attributed to rapport:

> . . . the more highly Americanized boys responding more favorably to an initially English-speaking examiner, while the more restricted and less acculturized girls achieved better rapport with an initially Spanish-speaking examiner. [p. 17]

In the second report, Anastasi and de Jesús (1953) administered the Goodenough Draw-a-Man Test to 50 Puerto Rican 5-year-old children. IQ scores were then compared with scores attained by similar groups of white and black children. No differences were found in IQ scores between groups. Analysis of the spontaneous language elicited from SSSS children showed that Spanish was used almost entirely during testing. Only about 2 percent of the words and less than 1 percent of the sentences were spoken in English. In addition, it was noted that Puerto Rican children exceeded both the white and black groups in mean sentence length and in maturity of sentence structure. These data are important because they illustrate that IQ and language development of SSSS children are *not* lower than other ethnic groups when attention is given to culture-fair methods of assessment.

Altus (1953) commented on the construction of the Wechsler tests of intelligence. He observed that discrepancies between verbal and performance IQ scores are expected to be small, regardless of size of score. To determine whether this was also true for Mexican children, WISC scores of 12 children referred for preliminary screening for special classes for the mentally retarded were studied. Mexican children attained a mean verbal IQ of 72.07 and a mean performance IQ of 84.01 whereas a non-Mexican comparison group showed a difference of only 2.5 points between the two scores in favor of the verbal scale. Furthermore, the unilingual group had a mean verbal IQ 17 points greater than the Mexican children. These data add further confirmation to the argument that the pattern of IQ scores for SSSS children differ from non-SSSS groups.

Another study pertaining to the performance of bilingual subjects on tests of intelligence administered in two languages is provided by Keston and Jimenez (1954). Form M of the 1937 Stanford-Binet was given in English to 50 fourth-grade SSSS school children. One month later, Form L was given in Spanish to the same subjects. The mean IQ of the Form M–English administration was 86.0 and on the Form L–Spanish it was 71.8. The expected correlation between Forms L and M of the Stanford-Binet is .93. In this study, the obtained correlation between the two forms was only .36. These findings are in direct contradiction to the earlier reports of Mitchell (1937) and Mahakian (1938), who found *better* performance on a Spanish version of the Otis Scale. The findings are also in opposition to Sanchez (1934) and Anastasi and Cordova (1953), who reported *increased* test scores on the second administration of a test of intelligence.

Three criticisms of the Keston and Jimenez study suggest the findings are tenuous and therefore of relatively little value for our purposes. First, the study is methodologically weak since Keston and Jimenez did not counterbalance the language order of their tests. The second and more important criticism is that the translation of Form L was provided by a professor of Spanish in Madrid, Spain. Thus, one must consider the possibility that the translation, even if technically accurate (and there is no reason to suspect it was not), probably omitted contemporary regionalisms, colloquialisms, and idoms. These children actually may have been tested in a third "foreign" language: Spanish from Spain. Finally, no accurate assessment of degree of bilingualism was attempted. Bilingualism was determined through a personal interview, a practice the authors justify with the incorrect assertion that " . . . no accurate measure of bilingualism is obtainable" (p. 264). The Hoffman Bilingual Schedule has been used widely by other investigators since 1934.

No other relevant studies were found from 1954 until 1960.

Developments in Testing Since 1960

In an extension of Ammons and Aguero's earlier study on the Full Range Picture Vocabulary test (FRPV), Norman and Mead (1960) note that most studies using SSSS subjects limit themselves to the lower age groups and school grades because of the large dropout rate. To study subjects old enough to be in senior high school and college, Norman and Mead selected 150 volunteers for military services being processed through the Armed Forces Examining Station in Albuquerque, N. Mex. Fifty subjects from three age groups (17-18-19) were given the Hoffman Bilingual Schedule, followed by the FRPV.

Significant correlations were found between bilingualism and the FRPV (−.49) and between schooling and FRPV (.62). Among urban subjects, higher FRPV scores and less bilingualism were found. When obtained scores were compared with normative data for the FRPV, it was shown that Spanish Americans scored lower than Anglos. Upon combining these data with those of Ammons and Aguero, it was found that these differences between the two groups *increase* consistently from ages 7 to 19.

Another study using older subjects sought to assess the effects of speed on intelligence test performance. In this study, Knapp (1960) tested 100 Mexican and 100 Anglo males, mean ages 27.3 and 31.4, respectively, on the Cattell Culture Free Intelligence Test, Forms 2A and 2B.

Subjects were administered both forms in a counterbalanced design; one form was given with the usual speed requirements and the other without time restrictions. It was hypothesized that the Mexicans, being less "geared to the clock," would perform differently on the two forms of the test.

As expected, all subjects achieved higher scores when permitted unlimited time and lower scores when required to adhere to a time limit. More importantly, the difference was significantly greater for Mexicans than for Americans. It was also found that the Mexican sample scored significantly lower than the American sample, which makes the "culture fairness" of the test suspect. Both groups significantly increased their scores from the first to the second administration, but an intergroup difference was not significant. Also, both groups evidenced higher scores when the order of testing was power-speed.

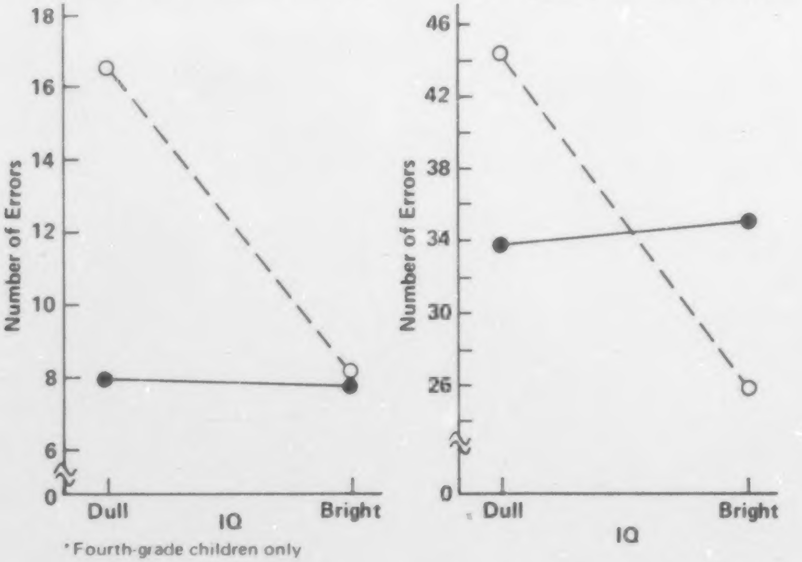
Perhaps the most innovative investigation on the intelligence of the SSSS was conducted by Jensen (1961). In his introductory remarks Jensen notes that:

> Teachers of the mentally retarded have at times noted that on the playground the Mexican-American children appear to be normally bright as compared with the Anglo-American retarded children, even though all are educationally retarded. Thus one immediately suspects a basic difference underlying the intellectual handicap of the two groups. [p. 148]

Jensen then argues that a better way to determine whether a child is retarded is to give him standard learning tasks and to record latencies. To test this hypothesis, "bright" and "dull" Mexican-American and Anglo-American children were compared on a series of tasks, which included recall, serial learning, and paired associate learning. Results clearly showed a significant difference in the learning ability of bright and dull Anglo-American fourth- and sixth-grade children. A similar comparison between bright and dull Mexican-American children indicated that they did *not* differ in learning rate, despite a mean difference of 34 IQ points on the California Test of Mental Maturity. Comparing the two "dull" groups, Jensen found faster learning rates for the Mexican Americans. The performances of the four groups can best be seen in figures 1 to 4.

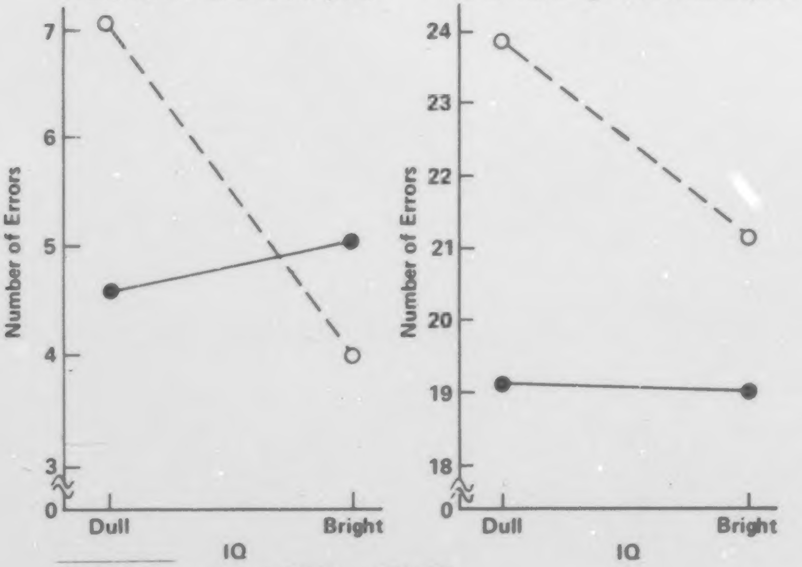
Figure 1. Mean error scores of dull and bright Mexican-American (solid line) and Anglo-American (broken line) children on four standard learning tasks.[1]

Recall Test for Familiar Objects* **Serial Learning of Familiar Objects**



*Fourth-grade children only

Recall Test for Abstract Objects **Serial Learning of Abstract Objects**



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[1] Adapted from Jensen (1961) pp. 154–155.

These data confirm an implicit assumption being made in this chapter. IQ tests appear to be successful in discriminating between intellectual levels of Anglo Americans, but not SSSS groups. Jensen himself concludes:

> Considering the very large proportion of low IQs in the Mexican-American population from which this study drew its samples, the findings of the study are consistent with the hypothesis that the distribution of basic learning abilities in Mexican-Americans is not substantially different from that in the Anglo-American population of comparable socioeconomic level. [p. 156]

In sum, the findings reported by Jensen indicate that low IQ attainment of SSSS children does not necessarily imply mental retardation as defined by "slowness" in learning. IQ-test users must rely on additional measures to assess the true learning potential of these children.

In a lengthy monograph, Lesser, Fifer, and Clark (1965) examined the mental abilities of 6- and 7-year-old children of middle and low social class from four ethnic groups (Chinese, Jewish, Negro, and Puerto Rican). A modification of the Hunter College Aptitude Scales for Gifted Children was utilized. Although the scales were originally designed for use primarily with gifted children between the ages of 4 and 5½ years, Lesser et al. reasoned that the scales would serve in measuring the abilities of older children. The mental abilities examined were verbal ability, reasoning, number facility, and space conceptualization. An analysis of covariance design was employed in order to control for effort and persistence, persuasibility or responsiveness to the tester, and age of the subject. To minimize the myriad of findings reported by Lesser's group, only the ethnic group comparisons will be reported here.

On the verbal ability scale, Jewish children ranked first (being significantly better than all other ethnic groups), Negroes ranked second and Chinese third (both being significantly better than Puerto Ricans), and Puerto Ricans fourth. On reasoning, the Chinese ranked first and Jews second (both being significantly better than Negroes and Puerto Ricans), Negroes third, and Puerto Ricans fourth. In terms of numerical ability, Jews ranked first and Chinese second (both being significantly better than Puerto Ricans and Negroes), Puerto Ricans third, and

Negroes fourth. Finally, on space conceptualization, Chinese ranked first (being significantly better than Puerto Ricans and Negroes), Jews second, Puerto Ricans third, and Negroes fourth.

Of major importance here was the finding that ethnic-group affiliation significantly affected the pattern of mental abilities. This is important since it indicates as Lesser et al. note ". . . that differential importance and emphasis is attached to these various mental skills in the different ethnic groups" (p. 72). Further, once the pattern specific to the ethnic group emerges, social-class variations within the ethnic group do not alter this basic organization.

These findings are of importance because they suggest that cultural influences in intellectual performance must be reassessed both in terms of measurement of intellectual capacity and educational planning for culturally different people. Cohen (1969), for instance, has shown that certain individuals and some cultural groups differ in conceptual styles. She has also shown that nonverbal tests of intelligence and achievement which have been designed to specifically reduce cultural bias remain biased against subjects who maintain a different conceptual style than that around which the test is oriented. In similar fashion Castañeda, Ramirez, and Herold (1972) have argued that the SSSS differ in their learning style and that the educational system has failed to educate SSSS children because it has not been responsive to this difference. (An elaboration of Castañeda's thesis is presented in the following chapter.)

Reporting on the age-intelligence relationship of Puerto Rican adults, Green (1969) presents information drawn from the standardization sample for the Spanish language Wechsler Adult Intelligence Scale (WAIS). Four stratified, random groups, ages 25-29, 35-39, 45-49, and 55-64, are compared with similar age groups to test the prediction found in the literature that adult intelligence peaks at age 20 and declines thereafter.

Green's data show that WAIS full-scale scores rise to age 40 and never decline; verbal means rise to age 50 and never fall; performance scores, however, show a slight decline after age 40 — due primarily to increased errors on "digit symbol." These data are consistent with corresponding investigations of the age-intelligence relationship of Anglo-Americans.

An interesting study by Christiansen and Livermore (1970) investigated the influence of social class on IQ scores. In this study, Christiansen and Livermore compared the performance of Anglo-American and Spanish-American school children from low and middle social classes on the verbal, performance, and full-scale scores on the WISC and on four WISC factors derived from Cohen's (1959) analysis of the WISC. These factors are: *freedom from distractibility*, a measure of how effectively the subject attends and/or concentrates on a task; *relevance*, a measure of the application of judgment to situations; the ability to use verbal skills in new situations — a transfer factor; *verbal comprehension*, a measure of that aspect of verbal knowledge retained from former experiences; and *perceptual organization*, a measure of how effectively the subject can interpret and/or organize visually perceived materials.

The results indicated that middle-class children outperformed lower class subjects on all of the seven WISC scores and factors examined. Yet, Anglos scored higher on only four factors: full-scale IQ, verbal-scale IQ, verbal comprehension, and relevance. These findings clearly support the conclusion that SSSS children score lower on the WISC because of deficiency in English verbal fluency rather than innate intellectual capacity.

Another four investigations reported in the literature have used the WISC to assess the IQ's of SSSS children. Simpson (1970) reports that correlations between WISC and WAIS scores are lower than expected among blacks, Anglos, and Mexican Americans who are below average intellectually. In this study it was shown that IQ scores are consistent for all three groups on the WAIS. In a study of examiner style, Thomas et al. (1971) show that the WISC scores of school-age Puerto Rican children are markedly affected by differences in examiners who were equivalent in sex, ethnicity, fluency in Spanish and English, and clinical experience. Specifically, Thomas et al. found that their subjects had higher WISC scores when the examiner encouraged active participation, verbalizations, and persistence on the child's part.

Killian (1971) administered the WISC, Illinois Test of Psycholinguistic Abilities, and the Bender Visual Motor Gestalt test to 84 subjects including Anglo-Americans, Spanish-American "monolinguals," and Spanish-American "bilinguals." Subjects were matched for school achievement, and bilingualism was determined by an interview with a native Spanish speaker. The three groups differed significantly on WISC scores, with the Anglo children scoring highest on all WISC scales and the Spanish-American bilinguals scoring the lowest. Supporting analyses from the other test instruments, however, suggest that the Spanish-American children were deficient on the input side of communicative skills, especially in understanding sentences and pictures. Killian's data also appear to suggest that bilingualism per se is not as important as earlier believed. He states:

> . . . bilingualism . . . may not be as important in school performance as in the more complex combination of variables making up the ethnic class Spanish American. Poverty, restriction of experience, and different value systems are associated with bilingualism among Spanish Americans and are probably more important than bilingualism. [p. 43]

In an effort to assess the difference between WISC scores obtained by English and Spanish administrations of the test, Palmer and Gaffney (1972) tested bilingual children first in English and 1 year later in Spanish. No difference was found in IQ scores between the two test conditions. This finding stands in contradiction to those of Anastasi and Cordova (1953) and Keston and Jimenez (1954).

Hertzig and Birch (1971) used the Stanford-Binet Form L to test white middle-class and Puerto Rican working-class children at 3 and at 6 years of age. The subjects were part of a group involved in longitudinal studies of behavioral development since the age of 3 months. In the case of the Puerto Rican children testing was conducted in either Spanish or English, depending upon the child's language of greatest fluency. Among the 3-year-old group, 17 of the middle-class and 12 of the Puerto Rican children could not be tested for reasons unspecified by the authors. At age 6 all of the middle-class children were tested (n = 110) and all but 2 of the Puerto Rican children (n = 57) were tested. Mean IQ scores tended to increase from age 3 to age 6 in both groups. These data therefore provide no evidence to support the hypothesis that measured intelligence declines with age among socially "disadvantaged" children. It should be noted, though, that the white middle-class children did score significantly higher on both testings. One interesting finding of this investigation was that the Puerto Rican children who were untestable at 3 years had IQ's at age 6 that were almost 13 points below those of the testable Puerto Rican children. This difference was highly significant statistically. Moreover, 50 percent of the initially untestable Puerto Rican children had IQ's below 90 at age 6, in contrast to 15 percent of the remaining Puerto Rican children who had IQ scores at this low level. Thus, untestability at 3 was a good predictor of poor performance at 6 for the Puerto Rican children but had no predictive value for their middle-class counterparts.

These data suggest that the IQ of the Puerto Rican child is well established by 3 years of age and tends to remain stable thereafter. Thus, increases in measured intelligence during the second half of the preschool period are unexpected and are probably poor indicators of the effectiveness of intervention programs. Nonetheless, other indices of behavior and behavioral competence pertinent to school learning may provide more sensitive measures of the impact of compensatory education on preschool SSSS children than overall IQ. It should be noted that the findings reported by Hertzig and Birch, along with their implications for compensatory education, are in opposition to those of Herr (1946).

At this point some recent work by two investigators (Mayeske 1971 and Mercer 1971 and 1972) working independently must be discussed in detail because their findings support a thesis implicit throughout this entire chapter — that is, that American tests of intelligence are "Anglo-oriented" and class-related. Mercer examined intelligence test scores, measures of adaptive behavior and sociocultural variables among Anglo, black, and Chicano subjects whose IQ scores were below average — IQ score less than 85. Using the American Association on Mental Deficiency definition of mental retardation — subaverage general intellectual functioning when associated with impairment in adaptive behavior — Mercer found that when she compared subjects who had IQ's below 70 (the lowest 3 percent) Anglos consistently scored in the lowest 3 percent on the adaptive behavior scale. This was not true, however, of either blacks or Chicanos — 91 percent of the blacks and 60 percent of the Chicanos with IQ's below 70 had *passed* the adaptive behavior test. In other words, intellectually subnormal Anglos required supervision while a significant proportion of the ethnic minority group members with equally low IQ scores were able to function in their environment without supervision.

The implication of Mercer's findings is that with regard to intelligence test scores, the tests are valid for Anglos, but not for blacks or Chicanos. Mercer (1971), herself, concludes that:

> . . . the IQ tests now being used by psychologists are, to a large extent, Anglocentric. They tend to measure the extent to which an individual's background is similar to that of the modal cultural configuration of American society. Because a significant amount of the variance in IQ test scores is related to sociocultural characteristics, we concluded that sociocultural factors must be taken into account in interpreting the meaning of any individual score. [p. 12]

In determining the influence of sociocultural factors, Mercer obtained information on the sociocultural characteristics of the families of her subjects. Through statistical analyses Mercer was then able to isolate the most significant sociocultural factors which influenced IQ for each of her two minority group samples. The data relating only to the Chicano sample will be discussed. The five most significant sociocultural characteristics were:

- living in a household in which the head of household has a white-collar job;
- living in a family with five or fewer members;
- having a head of household with a skilled or higher occupation;
- living in a family in which the head of household was reared in an urban environment; and
- living in a family in which the head of household was reared in the United States.

Further analyses of these sociocultural characteristics with IQ scores revealed that the greater the number of these five characteristics that a Chicano subject possessed the higher was his IQ score likely to be. These findings are shown in table 5-1.

Table 5–1. Mean IQ scores for Chicano children identified as possessing different numbers of sociocultural characteristics related to IQ test performance.[1]

	Number of sociocultural characteristics				
	1–0	2	3	4	5
Number of cases	127	146	126	174	25
Mean IQ	84.5	88.1	89.0	95.5	104.4
Standard deviation	11.3	11.6	11.8	12.1	10.4

[1] Adapted from Mercer (1972).

A careful inspection of table 5-1 shows that of those 25 subjects who possess *all* five of the identified sociocultural characteristics, a mean IQ of 104.4 is higher than the mean standardized IQ of 100 considered to be average for Anglo subjects.

The conclusion here is obvious:

> . . . what the IQ test measures, to a significant extent, is the child's exposure to Anglo culture. The more "Anglicized" a non-Anglo child is, the better he does on the IQ test. [Mercer 1972, p. 95]

Mayeske (1971), in a reanalysis of the achievement scores of sixth-grade students obtained by the Educational Opportunities Survey collected in the fall of 1965 at the direction of the Civil Rights Act, found that the difference in academic achievement performance between six racial ethnic groups (Indian, Mexican American, Puerto Rican, black, Asian, and white) is reduced when a variety of social-condition variables are corrected for statistically. The conditions of importance in the reanalysis were: social and economic well being of the family, the presence or absence of key family members, the student's and parents' aspirations for his schooling, their beliefs about how the person might benefit from an education, the activities that they engaged in to support these aspirations, one's region of residence, and the achievement and motivational levels of the students one goes to school with.

. Table 5-2 presents the average achievement scores for six racial-ethnic groups before and after statistical correction for the social condition variables. The achievement scores are composites of reading comprehension, mathematics achievement, and verbal and nonverbal ability. Inspection of table 5–2 indicates that before correction (with a distribution mean of 50) whites attain the highest score with Asians following them by about 4 points. Approximately 5 to 7 points below them lie the Indians, Mexican Americans, and blacks, with the Puerto Ricans following these groups by another 4 points. Following correction for the social condition variables, we see that the variance in the achievement scores between the groups is considerably reduced.

Mayeske appropriately concludes from his analysis that "no inferences can be made about the 'independent effect'

Table 5–2. Average composite achievement score classified by racial–ethnic group membership.[1]

Racial–ethnic group	Uncorrected mean achievement	Corrected mean achievement
Mexican American	42.2	47.5
Puerto Rican	38.6	47.1
American Indian	44.2	48.7
Black	42.5	49.4
Asian	49.4	51.2
White	53.2	50.4

[1] Adapted from Mayeske (1971).

of membership in a particular racial-ethnic group on academic achievement" (p. 21) since achievement performance is almost completely confounded with numerous social conditions. These findings substantiate the results reported by Mercer (1971 and 1972).

In concluding this part of the review of intelligence test scores of the SSSS, we observe that since 1960 the quality of the research on intelligence has improved substantially. More sophisticated research designs have been employed and a wide variety of hypotheses have been tested. Nonetheless, the research lacks the coherence of systematic investigation. Programs of research are not apparent from the literature review; no single variable or hypothesis was thoroughly examined by the numerous investigators who were working independently.

Future Needs and Recommendations

American psychologists have begun to lose interest in intelligence testing. Sundberg (1961) and other authors (e.g., Anastasi 1967) writing in the *American Psychologist* have pointed out that the testing movement has passed its peak of interest and is beginning to decline. Recent criticism that intelligence tests are unfair to the culturally "disadvantaged" and to the naive individual who lacks experience in taking standardized tests has been partly responsible for decreasing interest in testing (Commission on Tests 1970 and McClelland 1973). Articles appearing in journals such as *Professional Psychology* and the *A.P.A. Monitor* suggest that another reason may be changes in the psychologist's role model from "psychometrician" to "consultant." Intelligence testing has been somewhat disappointing because IQ scores have not predicted academic achievement at the elementary and secondary levels as well as had been hoped. Predicting "success" at the college or university level or in later professional life is even more precarious; the correlation between IQ and performance is lower at these levels because of such psychometric issues as the attenuation of range of IQ scores, which is characteristic at upper levels of education (for a discussion of this, see McClelland 1973).

With regard to the measurment of intelligence among the SSSS, it is clear that the tests available lack validity, and that validity is lowered even further by the manner in which they are used. To cite the most obvious deficiencies, normative standards are inappropriate, test items are culturally biased, and instructions may be misunderstood because of difficulties in communication. Since existing intelligence tests are invalid for SSSS, new tests should be created. But new tests will probably *not* be developed since interest in test development appears to be waning. This observation should *not* be misconstrued as implying that such interest should be discouraged in any way.

One alternative solution to the development of new tests is to somehow encourage more sophisticated use of all available tests of intelligence — especially paper-and-pencil group tests. Publishers of tests must be asked to include warnings in their test manuals, advertising brochures, and other literature that a given test has not yet been validated for use with the SSSS. Schools, mental health clinics, counseling centers, and other agencies which use tests with any frequency should be made aware of the deficiencies of tests employed. One way to ensure that warnings are heeded is to withhold support funding from any agency which attempts to provide service to the SSSS on the basis of invalid test data. Finally, of course, the user of the test — the psychometrician and the professional psychologist — must be sensitized to the dangers involved in unsophisticated test interpretation. In addition to publishers' warnings, announcements in professional journals could alert users to deficiencies in testing instruments. Revisions of textbooks and reorganization of courses on testing appear mandatory. Perhaps even special chapters should be included on the "clinical lore" of mental assessment: Psychologists would be well advised to remain alert to the possibility that intelligence test scores among the SSSS may represent significant underestimates of intellectual *potential*. Some of the preceding suggestions have already been implemented to a limited extent. Continued and greater efforts must be expended, however, to stop the invalid use of tests.

One solution which has long been offered in the testing of SSSS children is to test the children in Spanish (e.g., see Mitchell 1937, Mahakian 1938, Anastasi and Cordova 1953, and Keston and Jimenez 1954). But translations offer no panacea. Little attention has been given to the subtleties involved in translating material from one language to the other. Three of the problems that can arise are that the meaning of important phrases may be lost in translation, the difficulty level of vocabulary items may change with translation, or translators omit regionalisms and colloquialisms which may communicate more effectively than standard Spanish translations. Sanchez (1934) recognized these problems 40 years ago, but researchers continue to cling to translation as a solution. If it is to be a viable alternative to developing new tests, research must be done to determine the adequacy of a given translation. Brislin (1972), for example, discusses the use of "back translation" as a method to be used whenever psychological materials are translated for use with other cultural groups.

Future Research

Intelligence has been defined so narrowly that little research has been done on cognitive processes. It is generally accepted that cognition depends to some unknown extent upon verbal symbols — i.e., language. Among the bilingual SSSS, complicating factors arise because we know even less about cognitive processes in the bilingual than in the monolingual. For example, psycholinguists still have not adequately investigated cognitive processes in the bilingual, whether cognition differs in the two languages of a bilingual is still not known, nor is it known whether bilingualism has inhibitory or facilitating effects upon cognition. Additional research is needed to answer questions of this type. It would probably be more productive to seek a better understanding of cognitive processes among bilinguals than to invest the same amount of energy in the development of new tests of intelligence: Such knowledge *might* enhance our ability to predict performance in academic endeavors.

Exploring cognitive processes among bilinguals appears simple compared to the problem of characterizing bilingualism itself. Very few of the relatively small number of psychological studies on bilingualism attempted to *define* bilingualism (recall the recurrent criticism in Darcy's 1953 and 1963 reviews). A few studies designated children as monolingual vs. bilingual on the basis of parent contact, some on teacher interview, and some solely on the basis of Spanish surname. The potential for confounding *degrees* and *types* of bilingualism among the experimental group is enormous. This point is exquisitely subtle and requires further elaboration.

A number of workers have suggested that bilingualism may be *situation-determined* (e.g., Anastasi and de Jesús 1953). SSSS school children, for example, may speak two languages: a Spanish "home" language and an English "school" language. The literature fails to reveal the most simple test of this hypothesis. It would seem to be fairly simple to obtain a frequency count of the number of household objects, events, and processes identified or named in Spanish by SSSS children and compare these enumerative data with those elicited from relevant control groups (e.g., English household word recognition by Anglo and SSSS subjects).

As an aside, there is no reason to expect bilingualism to be restricted to only two kinds of situation-determined fluency. Although the research literature mentions only "home" and "school," other situations seem possible. It is conceivable, for example, that a SSSS migrant farm worker might be very familiar with farm vocabulary in Spanish (e.g., recognize and use terms such as salary, wage, overtime, foreman, etc.), yet be unable to translate adequately.

We know almost nothing about *types* of bilingualism. Among the SSSS, some are monolingual in either English or Spanish. Others are "passive" bilinguals — they understand two languages, but speak only one. Still others are "balanced" and are equally fluent in two languages. And it goes without saying, of course, that tremendous individual differences in fluency may exist.

A brief recapitulation may be helpful. What is being suggested is that within any group of SSSS, individuals may vary with regard to their ability to communicate and comprehend an unknown number of situation-determined languages (e.g., school, home, farm produce, work, or other). Furthermore, individuals may vary along a dimension of fluency in English, Spanish, or both. This brief recapitulation of several preceding paragraphs is presented to illustrate the tremendous naiveté involved in any research design which subdivides SSSS persons into two groups (allegedly monolingual and bilingual) and which subsequently reports intelligence test scores derived from either language in an attempt to predict academic performance in an English-speaking school system.

The relationship between bilingualism and cognitive and intellectual functioning is extremely complex. No research findings were discovered bearing on "age of acquisition" of language. One question being raised concerns how (if at all) the SSSS child who is monolingual in Spanish at the age of admission to kindergarten differs from another SSSS child who is bilingual. A related question concerns whether the monolingual adult acquires fluency more or less easily than the monolingual or the bilingual child. And, of course, the question of major interest is how these factors bear on thinking and intelligence.

As discussed earlier, some research has shown that SSSS subjects who are bilingual generally obtain lower IQ scores on tests in either Spanish or English (e.g., Keston and Jimenez 1954). The most common explanation for this finding is that bilingualism somehow "interferes" with thinking, creates "confusion," and lowers intelligence test performance. But an alternative explanation has at least some degree of "face" validity. One might conjecture that familiarity with two languages may require a *greater* degree of intellectual ability (immediate recall, long-term memory, analysis, synthesis, etc.) than fluency in only one. If this proposition is true — and there seems to be some support that it is (see Peal and Lambert 1962)—then bilingual subjects are being handicapped even more than we had imagined by lower group mean IQ scores. The ultimate test, of course, is to be sought in experimental investigation.

One final comment of the unknown nature of bilingualism before we move on to less complex issues. People who are bilingual, regardless of language, demonstrate a recognizable phenomenon in conversation with other bilinguals. They frequently "switch" from one language to another for reasons which appear obscure to the monolingual listener. Sometimes the "switching" appears relatively simple; for example, exclamations for emphasis ("You don't say!" or "¡*No me digas*!). On other occasions too numerous to be due to chance, however, whole phrases, sentences, and thought units are "switched" for no obviously discernible reason. The research literature is impoverished and offers little explanation for this phenomenon. (For an interesting analysis of language switching in the bilingual see Gumperz 1970.) Once again, the reader is reminded that bilingualism *qua* bilingualism is of minimal interest in this review; the major emphasis is upon further understanding of bilingualism as it bears on intellectual functioning.

The obscure nature of bilingualism is exacerbated by an observation first reported by Darcy (1953). In most countries, and certainly in the United States, bilingualism is associated with a number of discriminatory practices. Certainly, many American bilinguals are deprived of their political, social, and economic rights. This process has two effects: First, it bears upon low fluency in certain types of situation-determined vocabularies. Any SSSS migrant worker who is essentially disenfranchised and politically ineffectual, for example, would be expected to lack fluency in the relevant language. It would be surprising if such a person could define, use, or even recognize "political" language such as "voting booth," "voter registration," or "political party." A second effect is that political, social, and economic deprivation tends to contribute to the whole cycle which keeps poor people poor: Some of the manifestations of the deprivation are bad schools, weak teachers, early dropout, menial employment, limited family income, and decreased opportunities for education and occupational advancement. Both effects obviously impair intelligence test performance as currently measured.

A number of studies have shown that SSSS children perform better in school settings if adequately prepared. Programs for SSSS preschool children were proposed about 40 years ago (Sanchez 1934a) and data validating such programs have been available for more than 25 years (Herr 1946). Recommendations which emerge should be obvious. Preschool programs are essential to provide bilingual children with the basic vocabulary they will need to understand their teachers and to acquire skills in coming years (i.e., reading vocabulary, math vocabulary, etc.). Teachers, of course, should ideally be bilingual. If they are not, they certainly should possess at least a minimum vocabulary plus some knowledge of the culture of the SSSS children they intend to instruct.

6

ACADEMIC PERFORMANCE

The academic performance of Spanish-speaking, Spanish-surnamed (SSSS) school children is a very complicated issue. This review will summarize studies indicating that the academic performance of SSSS school children tends to be inferior to that of children from other ethnic groups. Next, studies will be cited which identify a number of intercorrelated variables which have been presented as putative explanations for this relatively inferior performance. In some instances, the reader will be referred to material presented in much greater detail in other chapters of this review. In other instances, however, material is presented for the first time and is discussed in more depth (e.g., student motivation and family attitudes toward education and their influence upon academic performance). Following this will come a summary of a group of studies examining the impact on "nonintellectual" variables (e.g., socioeconomic status) upon academic performance, the influence of environmental stimulation, and self-esteem of students. Next comes a discussion of ameliorative programs accompanied by an evaluation of their efficacy. The chapter concludes with recommendations for research and programs which can contribute to the resolution of this problem.

As early as almost 40 years ago, an article by Coers (1935) cited seven studies documenting the assertion that the school performance of Mexican-American children is inferior to that of Anglos. The date of one of his references (1924), *an unpublished master's* thesis by C. C. Ball, indicates the problem has been known for almost 50 years. In any event, Coers makes the following comparisons between Mexican-American and Anglo school children:

DIPLOMA
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Lower mental-age scores (range from "about 1 to 3½ years"), more scholastic retardation (e.g., within the same grade, Mexican-American children tend to be older), greater scholastic elimination (i.e., "dropouts" or "push outs" are more contemporary synonyms), and inferior ability in reading, science, history, literature, and language. The author seems to be referring to lower grade point averages and/or achievement test scores in these courses.

A similar study that appeared at approximately the same time corroborates the general impression summarized above (Manuel 1935). Spanish-speaking children attending Texas schools near the Mexican border are 1.6 to 2.9 years older per grade than English-speaking children. The author also notes that more than half of the Texas SSSS population are unskilled laborers, earn the lowest wages, and experience extremely unfavorable cultural conditions. In terms of achievement test scores obtained by the end of the second grade, SSSS students obtain lower mean scores in reading and arithmetic than do English-speaking students. By the eighth grade, the original difference is even greater. The finding that achievement test scores among the SSSS are 1 year lower in reading than in arithmetic is explained on the basis of poor fluency in English.

Both of these authors appear to hold prejudicial attitudes against the SSSS. The Coers' article opens with these two sentences:

> Since Mexicans, under the school regulations of Texas, are classified as white, children of these foreigners have open to them all the educational opportunities available to the children of other white races and, when brought into the schools by the compulsory school laws, present a problem which the school authorities have to face. In attempting to bring about the assimilation of these Spanish-speaking children with the children for whom the school system was originally planned, teachers and administrators have come to realize the importance of knowing how the achievement of these foreign children compares with that of the children of other white stock. [Coers 1935, p. 157]

In a more subtle vein, Manuel comments that:

> . . . local school problems are complicated by the presence of a large number of children chiefly of Mexican descent whose home language is Spanish [and]

> this almost complete dependence upon a foreign language from the beginning of their school work places a special burden on the elementary grades . . . . [p. 189]

The objection is to the assertion that the SSSS are foreigners in their own land and that they require (or even need or want) "assimilation" through a school system admittedly created for "others." It is equally distressing to encounter the attitude that the children must change their life styles to make the task of school systems easier. In terms of our historical national goal of creating a democratic society based on a literate, educated population, it seems eminently more reasonable to expect school systems to accommodate themselves to whatever special needs the children bring.

In another study conducted in Texas, Yarbrough (1946) compares chronological age and grade placement among "Latin-American" (i.e., Mexican-American) and Anglo children. Findings of relevance are as follows. In 1944, when the data were collected, the total school enrollment included 20.6 percent Mexican-American and 79.4 percent Anglo children; of the Mexican Americans, 42 percent reached the 12th grade compared to 73 percent of the Anglos; and, overall, Mexican-American students were 1.6 years older on the average than their classmates. To demonstrate the significance of this last datum in more compelling terms, consider that 8.1 percent of the Mexican Americans were "under age" for grade placement compared to 34.6 percent of the Anglos, 23.6 percent of the Mexican Americans and 40.8 percent of the Anglos were "normal age," and 68.3 percent of the Mexican Americans and 25.6 percent of the Anglos were "over age."

Data are available indicating that Puerto Ricans have somewhat similar problems, but as yet, documentation is rare in the psychological literature. Relevant data cited in the 1971 census indicate that 23.7 percent of Puerto Ricans over the age of 25 have completed less than 5 years of school while another 19.8 percent over 25 years have completed 4 years of high school or more.

An article by Cordasco (1967) summarizes data on the schooling of Puerto Rican residents of New York City. These data indicate that only 13 percent of the Puerto Rican group had completed 12 or more years of education compared to 31 percent Negro and 40 percent white. Almost 53 percent had less than 8 years education compared to 30 percent of the Negroes and 19 percent of the whites. Cordasco also indicates that fewer than 10 percent of Puerto Rican third-grade children were reading at or above their grade level. There are other data, but the basic conclusion is that Puerto Rican children are not receiving an adequate education in the New York City school system.

Although dated, these three studies on Texas Mexican Americans (Coers 1935, Manuel 1935, and Yarbrough 1946) and Cordasco (1967) on Puerto Ricans in New York City reveal the seriousness of the problem, while recent census information confirms that the situation has not changed in these past 30–35 years. On the average, among SSSS school children, fewer enroll and even fewer reach the 12th grade. Among those SSSS children who attend school, there is a tendency to be older than classmates in the same grade; this is undoubtedly due to a higher frequency of "flunking" grades. Furthermore, SSSS school children tend to obtain lower scores on tests of academic achievement and intelligence.

Explanations which have been presented over the past 40 years for academic underachievement among the SSSS are extremely difficult to review and evaluate succinctly. First, many — if not most — of these variables appear intercorrelated to an unknown degree. Second, older papers attempt naively to explain academic underachievement on the basis of two or three simplistic variables while more current works cite much longer lists. Third, many variables seem to be deduced on the basis of "common sense" and very few have been subjected to empirical test. To avoid redundant cross-indexing, the most critical arguments will be presented in the context of the paper (or few papers) which describe it best. It should be noted that a simplistic argument such as, "inadequate fluency in English retards school performance," is stated in virtually every paper.

The major focus of the article by Yarbrough (1946) is upon the problem of SSSS school children who are "over age" in terms of grade placement. This paper is impressive for several reasons. Yarbrough manifests the foresight to perceive that this situation results in a "loss sustained by society in human resources" (p. 26). He also cites "lack of interest on the part of parents and children" (this factor is rebutted by later work; see below, Anderson and Johnson 1971). His second category includes "those existing conditions which are obviously not conducive to interest and success in school (and) should be eliminated" (p. 26). He lists "poor housing, inadequate teaching materials, poorly trained teachers, and improper attention to the needs and interest of the children involved . . .". Third, he points out that "curricular planning (is not) suitable for . . . children who . . . have different backgrounds, language and culture" (pp. 26-27). His arguments are compelling.

Caldwell and Mowry (1933, 1934, and 1935) present three papers examining the effect of minority-group membership and bilingualism upon school performance as measured by teachers' grades and various achievement test scores. These studies cannot be described briefly because they are so detailed. They include comparisons of sex by ethnicity (Mexican American vs. Anglo-American) and by type of school district (rural, small and large mining, and railroad towns). The dependent variables in their 1933 study include teachers' grades and scores on essay vs. objective tests in two content areas — English and history. Their conclusions are that bilingual subjects perform below monolingual English-speaking subjects regardless of content area and that the bilinguals perform least well on essay tests since they require fluency and word recall whereas objective tests depend more upon passive word recognition. They also note that the differential is test specific; i.e., bilinguals perform least well on the test of history. Correlations are presented in a second study (1934) between Stanford Achievement Test scores and teachers' grades based on objective vs. essay tests among bilingual and monolingual subjects. All correlations are of the same magnitude with the telling exception of *lower* correlations among bilinguals. The inference is clear; essay tests are less valid measures of academic performance among the SSSS.

To illustrate the complexity involved in determining the relative influence of bilingualism upon academic performance, a study is presented below which reached conclusions opposite to those of the Caldwell and Mowry studies. Lewis and Lewis (1965) examined written language performance among subjects who were sixth grade school children, all low socioeconomic class, and monolingual or bilingual in either Chinese or Spanish. Subjects viewed a silent film, then were instructed to compose a relevant composition. Dependent variables included seven different verbal measures (e.g., verbal output, vocabulary, spelling and grammatical errors, etc.). In the original analysis of data, IQ was recorded, but not controlled. In this condition, significant sex differences were found in written language performance among monolingual and bilingual Chinese groups, but not among the bilingual Spanish group. Comparing responses from small samples of matched subjects (sex, bilingualism vs. monolingualism, and IQ), these authors report "that bilingualism in general did not appear to have an adverse effect upon written language performance" (p. 239).

Rather than attempt to reconcile contradictory interpretations based on conflicting data, we refer the reader to the extensive discussion of bilingualism in the chapter on intelligence. Additional comments concerning recommendations for future research are also to be found in the final part of this chapter.

It is conceivable that the lower scores obtained on tests of academic achievement among the SSSS may be due to motivational factors; that is, SSSS may feel less need to achieve. To test this hypotheses, Barberio (1967) administered a test of general achievement motivation to 138 subjects, half Anglo and half Mexican-American, eighth-grade students *matched* on IQ. Although Anglos obtain higher mean scores than Mexican-American subjects (4.05 to 3.89), this difference is not statistically significant ($p >$ .20). The inference is that need achievement (n-Ach) score differences are related to intelligence rather than ethnicity, per se. Again, the reader is referred to the chapter on intelligence for discussion of why SSSS obtain lower IQ scores.

Two studies appear which cast mild doubt on the validity of the finding reported above. Ramirez, Taylor, and Peterson (1971) report that Mexican-American junior high school students from a lower socioeconomic group obtain lower n-Ach scores than matched control Anglo subjects. Among entering college freshmen, Hall (1972) found a relation between n-Ach and socioeconomic status among lower class Mexican-American and Anglo subjects and middle-class Anglos. There was no relation between n-Ach and ethnicity among these subjects. These studies suggest that both IQ *and* socioeconomic status must certainly be controlled in future research on n-Ach among Mexican Americans, and probably should be controlled in all research with the SSSS.

Among younger Puerto Ricans, the situation may be more complex. Mingione (1968) measured n-Ach by having subjects tell stories in response to four sentences. She reports this order of n-Ach ($p < .05$) among her subjects: white, Negro, Puerto Rican. All subjects were fifth and seventh graders from the lowest socioeconomic group. Intelligence was measured but not controlled. Serious questions can be raised concerning the validity of the n-Ach measure since expected correlations between this variable and both school grades and IQ were not obtained.

Gill and Spilka (1962) attempted to identify "nonintellectual correlates" of academic achievement among Mexican-American secondary school students. Their subjects were 60 Mexican-American students matched on IQ (90-110), age, sex, and grade (11th and 12th). Half of these subjects had grade-point averages above the 70th percentile for their class ("achievers"), and the other half had grade-point averages below the 30th percentile ("underachievers"). The students completed the California Psychological Inventory (CPI) while their mothers responded to a modified questionnaire measuring maternal attitudes toward offspring. Achievers obtained lower scores on scales measuring "manifest hostility" and higher scores on anxiety adaptation, conformity achievement, intellectual efficiency, and socialization. Two sex differences and one significant interaction were obtained on a total of six "student variables" measured by the CPI. The authors point out that all of these behaviors manifested by achievers — e.g., less hostility toward authority figures such as teachers, more willingness to conform, and better work habits — are conducive to better classroom performance. Examination of maternal attitudes toward offspring indicate that underachieving boys and achieving girls have "dominating" mothers, whereas the reverse is true among achieving boys and underachieving girls. The authors interpret this finding with appropriate caution and with some understanding of the traditional sex-role system of the Mexican-American family (e.g., see chapter 3, normative behavior, especially the parts dealing with *sex roles* and *machismo*). They suggest that daughters may perceive maternal dominance as "affectional concern" (Gill and Spilka, p. 147). The son, in contrast, "may view maternal domination as an infringement of his independence strivings and react negatively to it . . . and possibly use school performance as a weapon against his demanding mother" (p. 147).

An inference not noted by these authors will be noted here and elaborated upon later; some Mexican-American children perform above the median of their class in terms of academic achievement. The fact that 30 Mexican-American students ranging in IQ from 90 – 110 were performing above the 70th percentile in terms of grades within their class tends to refute the argument that these children are intellectually, academically, or culturally deprived. As with any child, regardless of ethnicity, tradition, or subcultural membership, academic performance among SSSS children depends upon a significant number of interacting variables: intelligence, verbal fluency, reading skill, study habits, attitudes toward teachers, and family structure, to cite only the most obvious.

The search for nonintellectual correlates of academic performance is furthered by a study by Henderson and Merritt (1968). From a pool of 378 6-year-old, first-grade SSSS youngsters (Mexican American), investigators identified a sample of 38 subjects with "high" potential for future academic work, and a sample of 42 subjects with "low" potential. Once again, the selection of a pool of Mexican-American students with a "high" potential for academic work weakens the argument of intellectual impoverishment and/or a "disadvantaged" culture. Criterion measures were scores on two nonverbal tests of intelligence; one involved human-figure drawing and the second was an estimate of vocabulary based on picture recognition. Next, the mothers of these children were interviewed in their preferred language — either Spanish or English. Trained interviewers employed an interview schedule to assess three characteristics defining a set of nine environmental variables. Since all interviews were recorded and transcribed, additional information of a sociological nature was also elicited, retained, and analyzed.

> Analysis of the structured interview data indicated that: Children in the high potential group apparently came from backgrounds that offered a greater variety of stimulating experiences than were available to those children in the low potential group. [p. 103]

This difference is based on the sum of scores on nine "environmental process variables" (EPV): achievement press, language models, academic guidance, activeness of family, intellectuality in the home, work habits in the home, work habits in the family, identification with models, range of social interaction, and perception of practical value of education. A sample of 35 of the original pool of 80 subjects was located at the end of their 3rd year of school. Henderson (1972) correlated scores on the California Reading Test with scores on the nine EPV. He reports positive and significant correlations (range was from .39 to .61) on all EPV except *work habits in family*. He recognizes that psychologists can use this information to help Mexican-American parents create more intellectually stimulating environments for their children.

The two groups in the original 1968 study were also compared on 32 sociological factors spontaneously offered by mothers and analyzed by Henderson and Merritt. Table 6-1 contains the comparisons of high-potential and low-potential groups on the sociological factors investigated. The *nonsignificant* differences are interpreted as reflecting *similarities* between the high- and low-potential groups. This interpretation possesses great face validity since it is consistent with other research citing "typical" or "traditional" aspects of the Mexican-American family. For example, both samples are "alike" (i.e., mean differences which are nonsignificant) in terms of variables such as "presence of extended family . . . prefer relatives as associates . . . value family life."

Of greater interest in the context of this review are those variables which discriminate between the high- and low-potential groups. All differences support the previous interpretation that the high-potential children are exposed to a broader range of experiences than their low-potential counterparts. To cite only a few of the more obvious differences, high-potential children have fewer siblings, fathers with higher status work, mothers with more education, and more periodicals in the home. Although all these children share the same general culture, including family structure, they differ with regard to certain specific variables which relate to immediate differences in academic potential and later differences in achievement.

Henderson (1966) reports relevant data from his unpublished dissertation. High-potential children obtained significantly higher scores than low-potential children on

Table 6–1. Comparison of high potential and low potential groups on selected sociological factors.[1]

Factor	Test of significance[2] Chi square	 U test (z)
Family structure		
Presence of extended family	.038	
Marital stability of mother	.007	
Father figure in household	2.092	
Number of children in family		2.45[4]
National origin		
Children born in Mexico	1.317	
Parents born in Mexico	.504	
Occupational status of parents		
Fathers employed full time	7.843[4]	
Status level of fathers' work	4.403[3]	
Family dependent on mothers' income	.237	
Educational status of parents		
Mothers compared with fathers		.60
High fathers and low fathers		1.44
High mothers and low mothers		2.30[3]

(Continued on next page)

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[1] Taken from Henderson and Merritt (1968).

[2] Note: All significant differences favor the high-potential group.

[3] Significant at .05 level.

[4] Significant at .01 level.

Table 6–1. (Continued)

Factor	Test of significance[2]	
	Chi square	U test (z)
Linkages and interpersonal relations		
Friends in Anglo neighborhoods	.172	
Prefer relatives as associates	.812	
Have friends as associates	.320	
Membership in sodalities	3.908[3]	
Periodicals in home	10.625[4]	
Travel and diversion		
Contacts with Mexico	.206	
Engage in weekend travel	16.236[5]	
Travel for educational purposes	5.014[3]	
Travel to visit kin	1.808	
Travel to gain experiences	4.851[3]	
Engage in active diversions	8.263[4]	
Values and achievement motive		
Value family life	.269	
Value financial stability	.746	
Express pride in husbands	1.014	
Feel achievement blocked by discrimination	.005	
Desire change in life of family	.004	
Future orientation in use of finances	6.764[4]	
Feel unskilled labor undesirable	4.089[3]	
Discrepancy between educational desires and expectations	10.477[4]	
High estimate of child's ability	6.099[3]	

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[1] Taken from Henderson and Merritt (1968).
[2] Note: All significant differences favor the high-potential group.
[3] Significant at .05 level.
[4] Significant at .01 level.
[5] Significant at .001 level.

tests of vocabulary in Spanish! This refutes the common assumption that children from the "most Mexican" families will experience the greatest difficulties in Anglo school systems. The Henderson and Merritt (1968) study, considered as a whole, indicates that SSSS school children can compete successfully in school if they are offered intellectually stimulating experiences.

An extremely detailed study of achievement motivation among the SSSS is provided by Anderson and Johnson (1971). Their design and results are directly relevant to this review, but must be greatly summarized. The investigators conducted their research in a small town (50,000 population, approximately half Mexican American), located within 50 miles of the Mexican border. On the basis of stratified random sampling, a pool of 163 junior and senior high school students was subdivided into five groups of Mexican Americans and two groups of Anglos who varied with regard to country of birth (for self, one parent or both, or grandparents). Dependent variables included the subjects' most recent grades in English and mathematics along with nine factor scores based on a subset of 30 questions derived from a 140-item questionnaire. Five factors describe the home environment: patterns of language usage in the home, amount of emphasis placed on achievement (getting good grades), completing high school, going on to college, and extent of parental assistance with homework. Four factors measure the child's attitudes toward school: participation in extracurricular activities, desire to achieve in school, concept of own ability, and educational aspirations.

One group of findings concerns grades. Mexican-American students receive lower grades in English, but not in mathematics, compared to Anglo classmates. One subgroup, third-generation Mexican-American children who speak little or no English in the home, experience the *most* difficulty with English instruction in the school. Although the authors do not elaborate on this point, this datum seems to support the inference suggested by Henderson: Poor grasp of English is a greater handicap in an English-speaking school system than is good grasp of Spanish. Regardless of generation of birth in the United

States (i.e., born in Mexico vs. self, parents, or grandparents born in the United States), no differences were noted in math grades.

Anderson and Johnson reject the myth that Mexican-American parents discourage, or even deemphasize, advanced education for their children. These authors state:

> Mexican-American children on the whole experience as much pressure to achieve good grades in school, complete high school, and attend college from their parents as their contemporaries. These two findings strongly contradict the stereotype of the Mexican-American family as placing little emphasis on education. Furthermore, this interpretation is also borne out when one examines the factor that indicates the degree to which children report parental assistance with their school work. On the whole there appears to be little or no difference between Mexican-American children and other children with respect to this factor. [p. 300]

These data, and others too numerous to cite, support the conclusion "that the failure of many Mexican American children cannot be attributed to a low level of educational aspirations on the part of parents and child . . ." (Anderson and Johnson 1971, p. 305). The authors suggest that academic failure may be related instead to the persistence of Spanish as the language spoken in the home, as well as to the fact that level of parental education and family socioeconomic status remain quite low even after three generations of residence in the United States.

The authors say that one of "the most significant findings" (p. 306) to emerge is that Mexican-American children have relatively *less* personal confidence in their ability to achieve academically despite parental encouragement and high educational expectations. An implication is that the academic performance of Mexican-American children may be improved by programs which increase confidence in their ability to succeed in school.

Demos (1962) studied attitudes toward education of the students themselves. He selected a group of 105 Mexican-American students enrolled in grades 7–12. He also selected two Anglo control groups, one "random" and matched only on grade, and another matched on age, grade, sex, social class, and intelligence. Unfortunately, he does not tell us the ages of these students, whether they are normal age for grade, nor the proportion of male to females. No data appear to identify social class of subjects, and intelligence test scores (e.g., group means and ranges) go unreported; the reader is not even informed how these critical variables were measured. Demos identifies a list of 29 "issues" relevant to Mexican-American attitudes toward education. Each item is written such that subjects choose one of five alternative responses ranging from "highly favorable" attitudes toward education ("It is wise to take part in class discussion as much as possible."), to "highly unfavorable" ones ("It is foolish to take part in class discussion."). The analysis of responses from Mexican Americans and the Anglo random group indicated that Mexican Americans held less favorable attitudes on 10 of 29 issues. Comparing the Mexican-American and the Anglo matched groups on the same 29 issues, Mexican Americans and Anglos differ only on six (Mexican Americans favorable on one and Anglos favorable on five). Before leaping to the misinterpretation that Mexican Americans have "unfavorable" attitudes toward education and that Anglos have "favorable" ones, certain points should be recognized. First, it should be noted that Mexican-American and Anglo school children are "alike" on 42 of the 58 comparisons (i.e., the number of mean scale values which are not significant across ethnic groups). Second, attention must be paid to the specific content of the items. For example, Mexican-American students indicate that their teachers do *not* understand them (item no. 1, $p < .01$), the staff is not concerned about their needs (item no. 5, $p < .01$), they are unwilling to seek counseling (item no. 14, $p < .01$), they are reluctant to disagree with teachers (item no. 22, $p < .05$), and the administration is unwilling to help (item no. 23, $p < .01$). Examining the content of these items supports the conclusion that something is being measured other than attitudes toward education. Some reflect the realistic perception of minority group members who find themselves in a situation unresponsive to their needs (e.g., items 1, 5, 14, and 23 are the most obvious). Furthermore, some of these items (see especially no. 22) may reflect the subcultural trait of respect for age (see also the chapter on normative behavior for a more detailed description of SSSS personality traits). Third, the single item on which Mexican-American students revealed a more favorable attitude than matched

Anglos referred to belief in the value of a college education (item no. 13, $p < .01$). It seems logically impossible to postulate an unfavorable attitude toward education among a student group supporting baccalaureate education.

In another chapter of this review (measurement of intelligence), reference is made to a paper by Herr (1946). Herr subdivided a pool of SSSS preschool children into two equivalent groups on the basis of age and IQ. Children in the experimental group were exposed to a program designed to enhance skill in social and emotional adjustment, vocabulary, physical development, auditory and visual perception, memory, and cooperativeness. Control subjects, of course, were not exposed to the program. One group of findings, discussed earlier, was that experimental subjects obtained a mean IQ score increase of 30 points. Here, we shall attend to differences between experimental and control groups on scores of reading readiness and achievement.

The Herr study presents a wealth of data, requiring 11 tables and a three-page summary to report. It is possible to communicate the major impact of this study more simply by being selective. First, on a test of *reading readiness*, 100 percent of the scores from control subjects fall at or below the 29th percentile, whereas 83 percent of the experimental subjects scored higher (as high as the 90th percentile). Second, even more impressive differences were obtained in terms of grade-placement scores in *reading achievement*. Among control subjects, 100 percent scored at or below the 1–5–grade level (i.e., the 5th month of the first grade); whereas *none* of the experimental subjects scored as low. The entire experimental group scored between 1–6- and 2–3-grade levels. These data support inferences by others (e.g., Anderson and Johnson) that the pattern of SSSS children slowly falling further and further behind in school can be checked and even reversed with appropriate preparatory or ameliorative programs.

Castañeda, Ramirez, and Herold (1972) recently prepared a manual for teachers of school children from different cultural or ethnic groups. These authors' sophisticated comments on teaching and learning are presented under three categories: cultural democracy, field dependence-independence, and a culturally relevant training program for teachers. They define cultural democracy "as . . . the right of any American child to remain identified with his own ethnic group while adopting mainstream American values and life styles" (p. 1). Castañeda, Ramirez, and Herold argue that members of different cultures will perceive the same events differently and will respond to the same reinforcers differently. Thus children from different cultures will arrive at school with different skills and expectations. For example, Jewish-American children score high on tests of verbal ability and low on tests of space conceptualization, whereas Chinese Americans show the opposite pattern of skills, even when socioeconomic status is controlled. These findings and much more data confirming that different ethnic groups display different patterns of intellectual ability can be found in the original works of Lesser, Fifer, and Clark (1965) and Stodolsky and Lesser (1967). In addition, Castañeda, Ramirez, and Herold present numerous other sources of potential conflict and misunderstanding between students and teachers from different cultures. They go on to argue for "cultural democracy" for SSSS school children:

> The familiar practice of punishing children for speaking Spanish is culturally undemocratic. The child who has been taught all his life in Spanish probably feels very uncomfortable, even terrified, when suddenly required to abandon all of his home schooling. Knowledge of the Spanish language is, moreover, an extremely important part of the Mexican-American culture. Whatever his intentions, anyone who keeps a Mexican-American (or Puerto Rican) child from learning or valuing Spanish has unknowingly created many painful social problems for the child. The child's rejection of Spanish is very likely to be interpreted by his family and others in his community as a rejection of the entire Mexican-American culture. Instead of being provided with opportunities for becoming bicultural, the child is thus forced to decide on one culture or the other. Worst of all, the pressures at school force the child to make this choice at a time in his life when he cannot possibly understand the personal long-term consequences. Cultural democracy requires that the school not make the choice for the child. A culturally democratic learning environment would be a setting in which the child acquired knowledge about his own *and* the dominant culture; the teaching would, furthermore, be based on modes or styles of learning that

> are culturally appropriate for the child in question. [pp. 4–5]

The authors assert that while teachers easily recognize that their cultural background may be at variance to that of some of their students, they resist modifying their teaching methods; the very experience of questioning personal and professional values is, apparently, extremely anxiety provoking. To provide teachers with a conceptual framework that would ease this shift in values Castañeda and his associates propose use of the concepts of field dependence and field independence (see Dyk and Witkin 1965).

Field dependence-independence is measured by a person's ability to adjust a rod to a vertical position while seated in a tilted chair in a tilted room (other devices exist, but this description conveys the essential elements). A subject is described as field *dependent* if he relies upon *external* rather than *internal* cues in forming a judgment. Of relevance to this review are a series of findings that field dependence and independence correlate with a number of other variables related to learning new material. There are, for example, different patterns of intelligence test performance, differences in conformity, and different attitudes toward authority figures.

Castañeda, Ramirez, and Herold conceptualize field dependence-independence as a "cognitive style." Subsequent research has found that teachers perceive students with cognitive styles similar to their own as more successful, and they give them higher grades. Further, Castañeda's group argues and cites data to indicate that Chicano children tend to be field *dependent* while American institutional practice tends to reward field-*independent* learning. This discrepancy creates conflicts between teachers and students and between teachers and parents — conflict which retards the educational purpose of the institution.

To resolve it, Castañeda, Ramirez, and Herold propose a training program for teachers. The basic model involves training teachers in both field-dependent and field-independent *strategies* of teaching. In the former strategy the teacher focuses upon the child, in the latter, the focus is upon the task. Also provided is a measurement model the teacher may use to record relative and absolute use of each strategy.

In addition to the substantive contribution made by Castañeda, Ramirez, and Herold to curriculum planning, their work is important for another reason. This work represents one of the rare instances in which SSSS social scientists have provided recommendations for culturally relevant methods of teaching.

Future Needs and Recommendations

Although the guiding purpose of this review is to provide insight into the problems of the entire SSSS group, it must be recognized that most of the research cited in this section bears on Mexican Americans of the southwestern United States — primarily residents of New Mexico and Texas. Obviously, one recommendation that must be given highest priority is to do additional research on all SSSS groups. We know something about Mexican Americans, a little about Puerto Ricans, but almost nothing about the many other SSSS. The best guess we can make at this point is that many of the academic problems confronting the Mexican American and Puerto Rican are probably also troubling other SSSS groups.

The educational problems of the SSSS residents of the United States can be summarized briefly: late registration, irregular attendance, over age in grade, low scores on tests of intelligence and achievement, low grade-point averages, premature termination, and underrepresentation in colleges and universities. There is no need to discuss here the impact of bilingualism or low intelligence test scores upon academic performance and achievement since these topics are discussed in detail elsewhere. Instead, we shall focus upon factors not previously discussed.

It was recognized early that late enrollment and irregular attendance are destructive to smooth progress in the school system. Although firm data are not available, it seems reasonable to assume that these conditions prevail even today. It is tempting to offer a simplistic solution, such as enforcement of laws regarding compulsory school attendance, but such an approach is doomed to failure unless other factors are considered. For example, it has been known for a long time that SSSS families subsist under conditions of socioeconomic deprivation. Family income has remained low and unemployment among heads of households has been high. With limited finances and job insecurity, education for children might represent an impossible luxury for some SSSS parents. If these problems could be solved other factors would be eliminated which influence academic performance adversely — e.g., inadequate nutrition, poor health care, or inferior housing. The point is that forcing children to attend school will not necessarily improve academic performance. It seems reasonable to predict, however, that enforcement of compulsory attendance laws *plus* elimination of poverty conditions cannot help but enhance academic performance.

This argument assumes, of course, that schools are adequate in terms of faculty, curriculum, and facilities. It is highly desirable that faculty be bilingual to facilitate communication with Spanish-speaking students. It is crucial that they be knowledgeable concerning the SSSS subcultures they will be working with. For example, it seems very possible that SSSS male students are somewhat less likely to respond favorably to discipline or instruction from female teachers; female teachers, particularly if close to the age of their students, might be well advised to treat SSSS males differently than female SSSS students. It is also recommended that faculty be selected who are "sympathetic" to SSSS students and their culture. It goes without saying that teachers who are prejudiced unfavorably toward their students, particularly concerning alleged unwillingness or inability to learn, will probably be ineffective in accelerating the acquisition of information.

The development of an appropriate curriculum is critical, new textbooks are needed, and the creation of innovative teaching methods is essential. Data are available indicating that positive self-esteem and personal confidence are factors conducive to learning (e.g., Anderson and Johnson 1971). It is possible to select courses and texts which enhance esteem and confidence. In some colleges and universities, "pride in heritage" is already being instilled by courses in Chicano and Puerto Rican studies. This type of course should be brought to the lower grades.

With regard to new teaching methods designed for the special needs of some SSSS subgroups, greater effort should be expended to educate the children of migrant farm laborers. One possibility would be to establish schools at temporary residence sites; another is to explore the concepts of "classrooms" that accompany children on their journeys (e.g., "tent-schools," traveling "school-vans," and greater use of educational television).

Several recommendations follow from the general suggestions stated thus far. First, research is needed to evaluate the relative efficacy of various educational programs among different SSSS subgroups. Next, it is mandatory that these findings, plus the suggestions cited above, be communicated to those who are responsible for the education of the SSSS. This would probably require the creation of brochures and/or special courses to be offered at schools of education. This information is particularly needed by teachers in areas with high proportions of SSSS.

The work of Castañeda's group (1972) provides a good example of how innovative, culturally relevant methods of teaching can be created and taught. The methods include a self-monitoring system teachers can use to maintain more precise control over the relative use of one teaching method compared to another. This whole approach of culturally relevant teaching methods requires more research. We need to experiment with these and with other methods to determine which are successful. We need to know more precisely which methods are most successful with specific SSSS or other culture groups. Finally, we need to discover variables in addition to field dependence-independence which can be used to develop other methods which expedite the acquisition of new information.

One final comment concerning teaching and learning: The suggestions and recommendations listed above are based on the assumption that whatever changes are implemented will involve *quality*. It does no good, for example, to educate a bilingual teacher in a variety of techniques proven successful with the SSSS and then expect him to function without the necessary equipment, whether it be buildings, texts, teaching aids, or audio-visual materials. Quality education may require federal subsidy and/or pressure from members of local school districts. Perhaps what is ultimately necessary are programs of voter education and registration.

Several interacting variables contribute to academic performance. First, among the SSSS, intercorrelations have been reported between parents' educational level and parental expectations for academic performance among offspring, on the one hand, and the child's level of performance and his confidence and self-esteem, on the other. In other words, SSSS children who perform well at school apparently *learn* they can do well and subsequently perform even better. There is a strong implication here that any intervention which enhances academic performance has the potential to become self-sustaining — that is, will tend to perpetuate quality performance. Thus, the need for programs designed to increase learning becomes critical. The compensatory preschool program described by Herr (1946) represents exactly what is being suggested (see p. 73). It is also possible, of course, to supplement these with such other programs as remedial education programs and tutorial programs. In the chapter on prejudice and discrimination we indicate how counseling programs to enhance self-esteem may improve academic performance. Research will be needed to identify other programs and to evaluate their effectiveness.

In this context, it should be recalled that academic performance is related to intellectual stimulation in the home, as measured by such factors as number of periodicals and amount of homework supervision by parents. Since it has been documented that SSSS parents encourage education among their offspring, it is very probable they will cooperate with any reasonable suggestion which will enhance the level of achievement of their children. Research findings of this nature should be disseminated among the target population — parents of SSSS school children. For example, bilingual campaigns can be launched to educate parents how to provide intellectual stimulation for their children. These programs can be conducted by SSSS educators via television, community organizations, and the schools themselves. It goes without saying, of course, that research should be encouraged which might contribute ultimately to the identification of other correlates of academic performance.

7

PREJUDICE & DISCRIMINATION

Because this is a complex area of research with literature stemming from many different disciplines, we shall begin by defining key terms. *Prejudice* is here defined as the belief maintained by a large segment of the dominant society that the Spanish speaking, Spanish surnamed (SSSS) possess a pattern of negatively valued traits. Such belief systems may develop out of personal contact with the SSSS, but, most commonly, prejudice toward others is learned from contact with prejudiced people. This review of the literature will show that the SSSS have long been victims of prejudice.

The second term is *discrimination*, defined here as the effects of prejudice. The U.S. census reports and other surveys indicate a history of reduced family incomes, poor health care, inadequate nutrition, inferior education, underemployment, and general sociopolitical impotence. These are all indices of discrimination. At several places in this review we have made the point that continued socioeconomic depression of this type is conducive to psychological stress.

In a later section of this chapter we shall summarize literature describing the psychological *responses* of the victims of prejudice and discrimination. First, we shall make some theoretical observations on the origins of prejudice.

Origins of Prejudice

The cause of antipathy of one group toward another probably antedates Neanderthal Man but is undiscernible from recorded history. Of greater relevance to this review,

data are unavailable that would explain the origin of prejudice directed toward the SSSS residents of the United States. Nevertheless, some insight into this process is found in Allport's (1958) work, Senter and Hawley (1945-1946) and Cota-Robles de Suarez (1971). In very general terms, people tend to perceive "differences" (i.e., "they" are different from "us") as negative and unfavorable. Furthermore, when there is any kind of "power conflict," whether political, social, or economic, these differences tend to become exaggerated and are perceived as even more negative and unfavorable. Presumably, this process began when the Anglo and SSSS cultures first came in contact with each other in what is today the southwestern United States.

Spanish-speaking people colonized the Southwest more than 350 years ago. Some of the villages in northern New Mexico were founded in 1598. A century later Spanish settlements were made in Texas, and almost two centuries later, in California. Thus, at the point of original contact, the SSSS owned the land and exercised politico-military power. The SSSS were "different" from the invading Anglos in terms of language, history, culture, religion, customs, and length of residence. Since corroborative data are impossible to generate we are speculating that as Anglos expanded the size of the area under their dominion they became increasingly convinced of their "right" to own, cultivate, and exploit the lands which had been wrested from the "inferior" inhabitants (for an analysis of this see Merk 1963). It became easier and easier for the invaders to perceive the indigenous inhabitants as inferior culturally, economically, and intellectually as more and more land was expropriated. The rights of the indigenous inhabitants became increasingly less important. Today the SSSS's plight of poverty, lack of education, and inadequate health care is cited as evidence of inferior status.

Unfortunately, such processes tend to be self-perpetuating and ultimately demonstrate their own validity in a tautological fashion. After all, if people are "inferior," they don't warrant the expenditure required for an adequate education; if people are poorly educated, they will hold menial positions with low incomes. When family finances are restricted and schools are of poor quality, children will tend to "drop out" early and seek gainful employment, however humble, to supplement family income. And, of course, there is the ultimate non sequitor: If people are poorly educated and menially employed, they are obviously "inferior," and their children don't want or need adequate schools.

Data exist indicating that the perception of ethnic differences begins fairly early. Johnson (1950) studied onset of prejudicial attitudes of Spanish-American and Anglo children toward each other. Findings are complex, but basically, the Spanish American appears to develop prejudicial attitudes at about 4 years of age and the Anglos earlier. Anglos appeared *more* prejudicial and their attitude of "superiority" increased gradually with age, —it was most prominent at age 12 (the oldest group of subjects). In the following section, we examine research illuminating the *nature* of the prejudices directed against the SSSS.

Nature of Prejudice

Despite the historical fact that this country was founded on the principle of equality among people, an abundance of data exists to indicate that the greater society has held, and continues to hold, a series of discriminatory attitudes toward various ethnic, racial, and cultural groups. The most obvious historical facts which support this assertion include genocidal policies directed toward native Americans, the introduction of black slavery to the Americas, and land expropriation from the SSSS which accompanied the expansion of the western frontier. Demographic data from blacks, Indians, and the SSSS comprise more "subtle" indices: higher infant mortality rates, decreased longevity among adults, and all the other morbid characteristics of ethnic-minority-group poor in the United States. We shall concentrate first on the most blatant indices of majority-group prejudice toward the SSSS.

An article by Simmons (1961) presents data from a small community in south Texas with a population estimated as 56 percent Mexican American. The choice of geographic region may have some potentiating effect upon the *intensity* of attitudes held by Anglos toward Mexican Americans, but other articles (cited below) suggest they are fairly representative in terms of *content*. Simmons' analysis of this community indicates the "upper" social class is exclusively Anglo and the "lower" social-class group is primarily Mexican American. The "middle" class includes a few Mexican Americans who appear to have earned this status by virtue of their talents as bilingual salesmen. Simmons offers three explanations for this phenomenon of socioeconomic stratification on an ethnic basis: (1) many recent Mexican immigrants are unfamiliar with Anglo culture and cannot assimilate readily; (2) Mexican Americans tend to live together in self-enforced isolation; and (3) negative attitudes and discriminatory practices are directed toward the SSSS. Considering the questionable validity of the first two "explanations," let us investigate the third in more detail.

According to Simmons, at the philosophical level, the typical Anglo adheres to "ideals of the essential dignity of the individual and of certain inalienable rights to freedom, justice and equal opportunity" (p. 288). In reality, however, these constitutional rights are granted only to a "high-type" Mexican (quotation marks in original). A member of the SSSS group is accorded "high-type" status by meeting three Anglo criteria: "occupational achievement . . . wealth . . . and command of Anglo ways" (p. 288). Even becoming a "high type," however, does not ensure acceptance into the majority culture because some Anglos do not believe that "Mexican Americans will be ultimately assimilated" (p. 289). This belief, held by "most Anglo-Americans" is based on the "assumption that Mexican Americans are essentially inferior" (p. 289). This "inferiority," according to Simmons' analysis of attitudes held by the majority of Anglos, is based on a "stereotype" of Mexican Americans as physically unclean with tendencies toward drunkenness and other criminal behavior. Further, the Mexican American is identified with menial labor, but as a worker he is considered improvident, undependable, childlike, and indolent. Possessing attitudes such as these, the Anglo-Americans feel justified in their practices of exclusion. But as Simmons points out, even the intended favorable features of the stereotype reinforce the Anglo's notion that Mexicans belong in a subordinate status. For example, Simmons states,

> Among those [traits] usually meant to be complimentary are the beliefs that all Mexicans are musical and always ready for a fiesta, that they are very "romantic" rather than "realistic" (which may have unfavorable overtones as well), and that they love flowers and plants and can grow them under the most adverse conditions. Although each of these beliefs may have a modicum of truth, it may be noted that they can reinforce Anglo-American images of Mexicans as childlike and irresponsible since they support the notion that Mexicans are capable only of subordinate status. [p. 292]

(The *effects* of these prejudicial attitudes upon the lives of the SSSS will be elaborated in a succeeding section.)

If these prejudices seem extreme or unrepresentative, consider the corroborative evidence gathered by Pinkney (1963). Attitudes toward Mexican and Negro Americans were elicited from 319 native-born, white residents of a western city. Six questions were directed at "local policy." For example, the question eliciting highest agreement indicates that 76 percent of the respondent group "approved . . . of Mexicans . . . being hired as department store sales clerks." Least approved (46 percent) was "living in mixed neighborhoods." If these data are alarming, consider those dealing with "equal rights." Only 36 percent of the respondents indicated that Mexican Americans should have "the right to . . . live with other Americans."

The reader is reminded that these data are considered fairly representative of national attitudes. There is no comment which can further illuminate the observation that a significantly large percentage of this sample was willing to abrogate the constitutional rights of fellow Americans on the basis of minority group membership. Now let's turn to less obvious indications of racial prejudice.

Bogardus (1943-1944) presents a fairly dispassionate discussion entited "Gangs of Mexican American Youth." He describes the tailoring of the "zoot suit," the origin of the label "Pachuco," and examines the causes of riots that occurred in the early 1940's. From the vantage point of a retrospective view of 30 years, however, his arguments are outlandish and patronizing. He notes that "they like to carry knives" (p. 58) and laments that "gang warfare is aggravated by the use of liquor, poisonous liquor, and sometimes by the smoking of marijuana cigarettes . . . which may drive their victims literally mad with hallucinations" (p. 59). He talks about intellectual retardation due to "inbreeding," but concedes that "not all are born bad" (p. 59). He supports the claim that the Nazi party may be indirectly responsible for the Pachuco riots (remember this was World War II), but pontificates that police and sailors cannot solve social problems by beating people (see especially p. 63).

Another article was presented to the scientific community around the same time by Humphrey (1945). He describes "stereo-types" formed by Detroit social workers of Mexican-American youth in relatively favorable terms such as *modest*, *courteous*, *gentle*, *docile*, and *reticent*. He identifies "types" of youngsters who are respectful toward parental authority, work, and other Mexican-American friends. Although this kind of personality trait identification is benign in and of itself, Humphrey goes on to explain social upheavals such as the Los Angeles "zoot suit" riots in a manner implicitly detrimental to Mexican Americans. He does not "blame" Mexican-American youth for these events, but neither does he mention the roles played by roving bands of sailors and police in instigating and maintaining this particular conflict. Neither he nor Bogardus identify the highly inflammatory role played by local newspapers during that crisis period (see McWilliams 1968). An excellent summary of McWilliams' analysis of the role played by the press in the "zoot suit" riots can be found in Marden and Meyer (1968), who state:

> Whipped up by the press, which warned that the Mexicans were about to riot with broken bottles as weapons and would beat sailors' brains out with hammers, the excitement erupted and two days of really serious rioting occurred, involving soldiers, sailors, and civilians, who invaded motion picture houses, stopped trolley cars, and beat up the Mexicans they found, as well as a few Filipinos and Negroes. At midnight on June 7 the military authorities declared Los Angeles out of bounds for military personnel. The order immediately slowed down the riot. On June 8 the mayor stated that "sooner or later it will blow over," and the chief of police announced the situation "cleared up." However, rioting went on for

> two more days. Editorials and statements to the press lamented the fact that the servicemen were called off before they were able to complete the job. The district attorney of an outlying county stated that "zoot suits are an open indication of subversive character." And the Los Angeles City Council adopted a resolution making the wearing of zoot suits a misdemeanor. [p. 143]

A more recent article by Martinez (1969) describes how Mexicans and Mexican Americans are portrayed in newspapers, magazines, and on television. He cites ads which portray the SSSS as "overweight . . . always sleeping . . . stinking." Morales (1971) concurs that American advertising portrays SSSS unfavorably. Both authors agree that ads which demean the SSSS serve to convince the majority group of their "white superiority" and simultaneously possess the potential to make members of the minority group uncertain of their status. It requires a great deal of personal confidence and pride in cultural heritage to resist concerted propaganda that one is a member of an "inferior" group.

Let us turn to older research to examine the prejudicial attitudes of educators. West (1936) submitted a list of "pupil traits" to 72 Anglo and 60 Spanish-American teachers from rural towns in New Mexico. All taught classes that included both Anglo and Spanish-American students. Basically, Anglo-American teachers acceded Anglo student superiority on 17 of 21 traits, approximately twice as often as Spanish-American teachers rated students of their own ethnicity as superior. Furthermore, Spanish-American teachers saw "no difference" between Anglo and Spanish-American students approximately 50 percent of the time; whereas, only 27.4 percent of the Anglo teachers chose this response option. Approximately 35 years ago, then, both Anglo and Spanish-American teachers were perceiving Anglo students as somehow "superior" to SSSS students. The implication is clear that these evaluations were subsequently communicated in terms of attitudes of ethnic superiority and inferiority. One can only speculate on the adverse effect such negative propaganda must have had upon motivation for continued education and preparation for better employment among the oppressed group.

A more recent study by Werner and Evans (1968) serves to illustrate how school systems preserve negative attitudes toward the SSSS. Using 40 Mexican-American boys and girls as subjects, ages 4 and 5, the authors studied preference for dolls of light and dark skin color following the method originated by the Clarks in 1939. Upon beginning school, these children stopped grouping dolls by sex and size and began to group by skin color. In general, white dolls were "good," and dark dolls were "bad." Following exposure to school, Mexican Americans identified with the white, "good" dolls. This study *tends* to imply that dark-skinned children were conditioned as a result of their school experience to evaluate dolls as "bad" which most resembled their own skin color. Unfortunately, we must be cautious about generalizing from this study because the authors used "Negro dolls [with] black hair and brown skin" (p. 1041) to represent Mexican Americans even while acknowledging that these people have "a wide range of skin color" (p. 1040).

Bloombaum, Yamamoto, and James (1968) report data highly relevant at this point. Half-hour interviews were conducted with 16 practicing psychotherapists to investigate attitudes toward Mexican Americans, Negroes, Japanese Americans, Chinese Americans, and Jews. Basically, 22.6 percent of all responses were scored as "culturally stereotypic" in terms of "imputations of superstitiousness, changeability in impulse, grasp of abstract ideas, and distinction between illusion and facts" (p. 99). The authors report that Mexican Americans are "most frequently the objects of such stereotypes, with Negroes, Jews, Chinese Americans, and Japanese Americans following, in that order" (p. 99). To measure the extent to which psychotherapists maintained "social distance" between themselves and minority-group members, they were asked to rank preference for marriage partners on the basis of race. Negroes were "least preferred," Mexican Americans were intermediate, and Jews were "most preferred." The major conclusions which emerge are that even psychotherapists are prejudicial toward Mexican Americans and that these prejudices reflect closely the unfavorable beliefs held by the greater society.

A partial summary of inferences drawn from studies reviewed thus far: There is a lengthy history of prejudice directed against the SSSS in the United States. Prejudice is sometimes expressed overtly (e.g., data from Simmons 1961 and Pinkney 1963) but sometimes is expressed with some degree of subtlety (e.g., see articles published in scientific journals by Bogardus 1943-1944; and by Humphrey 1945). Even psychotherapists involved in the delivery of mental health services reveal negative prejudices toward certain minority group members which resemble those found in the general population (Bloombaum, Yamamoto, and James 1968). Finally, and most alarming, we find evidence that the schools and advertising media are actively involved in the dissemination of prejudices which support the myth of "white superiority" by degrading the SSSS (Martinez 1969, Morales 1971, and Werner and Evans 1968). At this point, let us turn to the question of what happens to minority group members against whom the majority group holds antagonistic prejudices.

To support the notion that discrimination for the SSSS worsens with length of time in the United States, we can turn to findings reported by Siegel (1957). In this investigation, Siegel found that as length of stay in Philadelphia increased for Puerto Ricans, so did the frequency of mention of "discrimination" as what was liked *least* about Philadelphia. Responses to a Social Distance Scale, for instance, showed that slightly less than half of the 209 Puerto Ricans said that continental Americans willingly admit them to their streets as neighbors; about one-fourth said that continental Americans admit Puerto Ricans to their clubs as personal friends or to close kinship by marriage. Moreover, 44 percent answered in the affirmative to the question, "Do you think that continental Americans would like to exclude Puerto Ricans from this country?" Finally, unemployment was listed as one of the greatest problems encountered after leaving Puerto Rico; and, among those who were employed, a great disparity was noted between level of job aspiration and actual level of job achievement.

Effects of Discrimination

Up to now, we have only hinted at how the lives of the SSSS have been influenced adversely by majority-group prejudices. Here we shall become more explicit. Discrimination against the SSSS results in *economic* deprivation such as unemployment, underrepresentation in professions and technical occupations, and lower wages, to mention only a few. Discrimination in *justice* results in police harassment, inadequate legal aid and protection, exclusion from jury service, and so on. The relatively small number of SSSS legislators or appointed governmental representatives are illustrations of discrimination in *politics*. *Educational* discrimination results in inadequate school supplies, inferior buildings, poorly trained teachers and a low mean years of school attendance. These general conclusions may be inferred from any recent report of the U.S. census or from some of the several surveys reporting demographic data relevant to the SSSS.

Katzman (1971) summarizes data from Mexican Americans and Puerto Ricans (as well as other minority-group members) showing differences in occupation, income, employment, and labor force participation. A number of authors describe much more specific effects among the SSSS as a result of prejudice and discrimination. Cota-Robles de Suarez (1971) discusses a number of sociopsychological factors (to be presented below). Meadow and Bronson (1969) report increased psychopathology and Ulibarri (1971) describes attitudinal changes generally considered to be maladaptive.

Responses to Prejudice and Discrimination

A number of authors agree that the SSSS experience adverse psychological reactions to prejudice and discrimination. Cota-Robles de Suarez (1971) identifies these responses: obsessive concern with negative implications of ethnicity, denial of ethnic group membership, withdrawal, passivity, clowning, self-hatred, aggression against one's group, and group solidarity. Although these labels are self-explanatory, we shall examine a few in greater detail to provide better understanding of these behaviors and how they interact.

These behaviors may be experienced as either pleasant or unpleasant, depending in part upon whether or not they are successful in reducing stress. For example, "clowning" would probably be experienced as pleasant because of attendant social popularity combined with stress reduction. Withdrawal, on the other hand, is more unpredictable in its effect because it may take so many forms — e.g., social isolation, dropping out of school, or expatriation. Many of these reactions to prejudice may be adaptive since they reduce stress and preserve the psychological well-being of the person. For example, it may be adaptive for a SSSS student to terminate inferior education when its continuation would have no discernible effect upon the probability of better employment or increased income.

Several authors agree with the contention of Cota-Robles de Suarez (1971) that the SSSS experience "self-hatred" in response to prejudice and discrimination. Sommers (1964) presents anecdotal evidence in support of this premise. She describes the psychiatric case history of a young Mexican-American male who experiences guilt and a depreciated self-image when he rejects his own subculture in a vain attempt to play the role of an "All-American Boy." Research data confirming this thesis are presented by Petersen and Ramirez (1971). Their subjects were Negro, Mexican-American and Anglo-American school children in the fifth to eighth grades. They responded to one measure of "real self" and another of "ideal self" to test the hypothesis that the greatest "disparity" (or dissatisfaction with self) would be found among minority subjects. Further confirmation was provided by an item analysis of the self-ratings which revealed that minority-group subjects significantly described themselves in deprecatory terms such as "dull," "lazy," "stubborn," and "unfair."

Working in another area of research, Dworkin (1965) reports data supporting the premise that the SSSS experience low self-esteem. He compared attitudes of native-born and foreign-born Mexican Americans (NBMA and FBMA) toward Anglos and toward themselves. He predicted that the FBMA who comes to the United States seeking economic advancement would have favorable attitudes toward Anglos and self because he is "optimistic" concerning future success. The NBMA, on the other hand, has a lifetime of unpleasant experience with the majority group. He has noted the numerous advantages enjoyed by Anglos relative to his own position. As a result of this relative disadvantage, the NBMA develops a strong, negative stereotype of Anglos and an unfavorable self-image.

Inspection of table 7-1 indicates that 11 of the 12 self-images of the NBMA may be considered as negative, while only "proud" can be regarded to be positive. On the other hand, 10 of the 12 self-images of the FBMA may be considered to be positive, while only "short, fat, and dark" and "field workers" may be regarded as negative.

Table 7-1. Self-images held by native-born and foreign-born Mexican Americans.[1]

Native-born Mexican American		Foreign-born Mexican American	
Words most frequently agreed to	Percent	Words most frequently agreed to	Percent
Emotional	100	Proud	100
Unscientific	94	Religious	100
Authoritarian	92	Strong family ties	100
Materialistic	92	Athletic	98
Old-fashioned	88	Gregarious	96
Poor and of a low social class	86	Friendly	96
Uneducated or poorly educated	84	Happy	94
Short, fat, and dark	84	Field workers	90
Little care for education	82	Racially tolerant	88
Mistrusted	78	Short, fat, and dark	84
Proud	78	Practical	80
Lazy, indifferent, and unambitious	78	Well adjusted	76

[1] Adapted from Dworkin (1965).

The studies which follow are very interesting since they lead to different, and sometimes opposite, conclusions than earlier reports. One study by Hishiki (1969), for example, found less favorable "self" and "ideal-self" concepts among

California Mexican-American sixth-grade girls than among a comparable group of Georgia non-Mexican-American subjects. Closer examination of other reported data, however, reveal more and larger correlations between self-concept and academic achievement among Mexican-American girls than among the other group of subjects. Furthermore, a majority of subjects in both groups expect "to go to college" even though the Mexican-American children obtain mean IQ scores lower than 100 and academic achievement scores 2 years below grade level. These latter two findings suggest that at least some of the Mexican-American girls have the personal confidence or "self-esteem" to perform well in school and to anticipate and plan for higher education.

An informal paper by Carter (1968) argues strenuously against the thesis that Mexican-American students have negative self-concepts. Although his data-collection procedures and measuring instruments are described somewhat casually, he indicates that parents, students, teachers, and administrators of seventh-grade, eighth-grade and high school students in a geographic area that was 65 percent Mexican American were interviewed and tested. His conclusion warrants quotation:

> Nothing supported the belief that Mexican American students saw themselves more negatively than the "Anglo" students. However, it was very obvious that teachers and administrators believed them to be inferior and to conclude they saw themselves that way. [p. 218]

Further confirmation of this conclusion stems from a self-concept questionnaire administered to 190 Mexican-American and 98 Anglo high school ninth-graders. No significant differences were found, although, "In some cases, the Mexican Americans had a slightly larger percentage rating themselves on the positive extreme" (p. 218).

Two related papers dealing with person perception among minority-group school children yield data bearing directly upon the self-concept and self-esteem among Mexican Americans. In one (Rice, Ruiz, and Padilla, in press), Anglo, black, and Chicano preschool and third-grade school children were presented with photographs of young Anglo, black, and Chicano men. Subjects were asked a series of eight questions designed to test their ability to correctly identify the three photographs in terms of ethnic or racial membership and to state a preference for one of the three. Three significant findings were revealed by the data. First, preschool subjects could discriminate between photographs of the Anglo and black males, but they could not differentiate the Anglo from the Chicano. Second, preschool Anglo children reliably *preferred* photographs of their own group, while black and Chicano children did not indicate any preference. Finally, third-grade subjects of all ethnicities were able to discriminate between Anglo, black, and Chicano male photographs. Of major importance, however, is the finding that *only* the Chicano children displayed a strong preference for their own ethnic group. These data are interpreted as reflecting a significant degree of pride in group, heritage, and self.

The second study (Padilla, Ruiz, and Rice 1973), employed a total of 658 second-, fourth-, and sixth-grade Anglo, black, and Chicano children. Stimulus photographs were of children of all three ethnicities and of approximately the same age as the subjects. Male subjects were presented with six photographs of male children and females with six female photographs. The task for subjects was to respond to a series of 43 questions designed to measure the ability to make an accurate discrimination, to state a preference, and to predict future occupation by selecting one of the six pictures. In general, accuracy of discrimination increased with grade level as expected. Only one of three Anglos in the sixth grade indicated they would "most like to be" like a member of their own ethnicity, while 81 percent of the Chicano boys and 58 percent of the Chicano girls selected a photograph of a Chicano child in response to this question. In choosing a "friend," only about 20 percent of the Anglos chose a member of their own group, whereas 75 percent of the Chicano boys and 53 percent of the Chicano girls selected a photograph of a child of their ethnicity. Again, these data are interpreted as indicating a strong preference for one's own ethnicity among Chicanos, which in turn, carries a strong connotation for enhanced self-esteem.

A recent article by Peñalosa (1970) is relevant here. Peñalosa identified a number of events which support the inference that Mexican Americans are undergoing a process of enhanced self-esteem. He makes the point, for example, that the use of the term "Chicano (is) . . . a mark of ethnic pride . . . chosen by members of the group itself" (p. 47). As corroborative evidence, he cites a current resurgence of interest in the culture of Mexico, the development of institutes of Chicano studies at a number of colleges and universities, the increase in artistic and cultural works emanating from the barrios, enhanced social influence and political power (e.g., through appointed office), and the formation of numerous university student organizations (e.g., United Mexican-American Students and *Movimiento Estudiantil Chicano de Aztlan*).

Basically, we agree with the interpretation by Peñalosa that events based on enhanced ethnic pride tend to increase self-esteem. Although objective data are unavailable, we are suggesting that one might examine the Chicano and Puerto Rican *movimientos* for answers. It is obvious that the SSSS are beginning to insist upon the full exercise of their human, legal, social, and economic rights. Although this insistence is probably in response to prejudice from the majority group to some degree, it does not necessarily follow that striving for freedom is based on low self-esteem. On the contrary, it seems much more reasonable to assume that assertive insistence upon one's rights is predicated on a conviction of personal worth.

Future Needs and Recommendations

All human rights of the SSSS must be guaranteed if the democratic ideals of American society are to be preserved. This means that the SSSS must be free to exercise their legal, political, social, and economic rights without interference from any type of governmental or educational representative. To provide only two examples, teachers must respect their pupils, and police must cease harassment. Rhetoric, however well-intentioned, will never resolve this type of social problem. Let us therefore move to proposals for programs of investigative research and social action which might reduce the effects of prejudice and discrimination.

Prejudice and discrimination feed upon each other. Majority-group members tend to perceive the SSSS as inferior *because* the SSSS are poor, unemployed, uneducated, and politically weak. These attitudes will change in a positive direction as conditions of economic impoverishment and political impotence are alleviated. These comments should not be misconstrued as a sentimental appeal that we all begin to practice "brotherly love." What is being suggested is that a better society can be established with enforcement of existing legislation guaranteeing public education and nondiscriminatory hiring practices.

A related recommendation is the formation of a study commission to determine how best to educate representatives of society who deal officially with the SSSS. Possibly, crash programs in SSSS culture, designed for specific occupational groups (e.g., teachers and police), might minimize disruption. A related recommendation is consideration of some form of "intense encounter" between SSSS and officials, especially in geographic areas with histories of conflict. Educational units, such as departments of Chicano and Puerto Rican studies, could conceivably provide the necessary administrative structure and faculty.

The efficiency of these programs will depend in part on the nature of the information the American public is receiving about the SSSS. The news media must discontinue the practice of demeaning the SSSS, if these kinds of social-action programs are to be successful. The goal of greater participation in American society by the SSSS can be achieved, but only if there is respect for human dignity and only if the dominant society recognizes that the SSSS are proud of their heritage and will strongly resist "deculturation."

Research can contribute in several ways. One is to evaluate the success of the preceding recommendations. Research techniques can be applied to determine what type of educational program will be most successful in altering prejudice among, for example, Anglo police officers stationed in barrio areas or teachers working in schools with high percentages of SSSS students.

More knowledge is needed concerning personality development among the SSSS. We know that some individuals respond to the stress of discrimination with very adaptive coping mechanisms, but others do the opposite. Why? What assets and liabilities underlie these two responses? Can "coping with discrimination" be taught like other skills? Answers to questions such as these can make obvious contributions to our knowledge of personality development, as well as help to create a better society.

We know much too little about self-esteem among the SSSS. Additional and continued research on the self-concept among the SSSS, a *motivational* construct, should be supported. We are uncertain whether the SSSS have typically "positive" or "negative" self-images. We do believe, however, that any child, whether SSSS or not, who is convinced he cannot succeed at school, on the job, or in life, will probably perform below potential, fail, or drop out. Thus, we support research on the various facets of self-concept as a means of ultimately understanding the effects of stress and how coping mechanisms are acquired and employed by the SSSS.

Several related points merit inclusion here. If the proposed research on self-concept indicates ameliorative programs would be helpful (e.g., "build confidence"), then, of course, these should be implemented. It should be noted that the role of the school is crucial. The SSSS may lack self-confidence within the school system because of low achievement and/or negative attitudes from teachers. Should this prove to be the case, then these ameliorative programs might best be conducted within the schools themselves. Remedial educational programs could be combined with some variation of counseling sessions designed to enhance self-esteem. It goes without saying, of course, that teacher attitudes erosive to student esteem must be corrected in one way or another. The point has been made before in several sections that the schools must fulfill the purposes for which they were created.

One of the papers cited indicated that a significant percentage of Anglo-Americans appear willing to abrogate the civil rights of others on the basis of race or ethnicity. We recognize that research is a long-term commitment and that the research programs outlined here cannot immediately and directly modify the kinds of attitudes implied by the findings reviewed. On the other hand, collection and dissemination of this type of information seems to possess the potential of alerting concerned citizens of the dangers involved in some social attitudes held by some Americans.

8

COOPERATION & COMPETITION AMONG CHILDREN

In this section we shall introduce articles dealing with a fairly new area of research: the cross-cultural study of cooperation and competition among children playing games. Although a few articles exist, we feel a separate chapter dealing with this topic is warranted for several reasons. First, material covered here could be considered an appropriate addition to almost any chapter since cooperation and competition cuts across many of the content areas previously discussed. Such behavior, for example, may be considered "normative" (chapter 3), may contribute to performance on tests of personality or intelligence (chapters 4 and 5), and certainly influences academic performance (chapter 6). More generally, cooperation and competition appear to represent a behavioral substrate to other behaviors such as coping, adapting, achieving, and so on. Finally, it is our conviction that the merger of these two research interests, "cross-cultural" work and "game theory," represents a viable and heuristic direction for future work with minority-group members.

In recent years, Madsen and his associates have reported numerous cross-cultural studies directed at assessing the cooperative-competitive game behavior of Mexican children (Madsen 1967), Israeli kibbutzim children (Shapira and Madsen 1969), and urban Afro-American, Anglo-American, Mexican-American, and Mexican-village children (Madsen and Shapira 1970 and Kagan and Madsen 1971 and 1972).

In the first study of relevance here, Madsen and Shapira (1970) compared the game behavior of children of three ethnic groups (i.e., Afro-American, Anglo-American, and Mexican American) in Los Angeles, Calif., and a fourth group of Mexican-village children. The children (ages 7–9) were tested on a cooperation board developed by Madsen. Essentially, the task required groups of four subjects to pull strings attached to a pen. The goals were to mark target circles under conditions of "group reward" (all members of the group are reinforced) or "individual reward" (only individual members are reinforced). The first set of conditions is designed to enhance "cooperation," and the latter, "competition." In a series of three different experiments it was shown that members of all three minority groups are approximately equal in their ability to cooperate under conditions of group reward. Members of these groups become more competitive, as expected, under conditions of individual reward. Of major importance was the finding that the Mexican-village sample showed the least amount of nonadaptive competitiveness, and next were the urban Mexican-American children.

A second study in this series (Kagan and Madsen 1971), compared the game behavior of Mexican, Mexican-American, and Anglo-American children at two age levels (4–5 and 7–9 years), under four conditions of instructional set. The instructional sets were designed to provide a competitive or cooperative orientation as well as a control neutral set which allowed subjects to devise their own strategy. Pairs of subjects faced each other and played on a "circle matrix board," which contained 49 shallow cups (seven columns by seven rows). The game began with one marble placed in a center cup, and the goal was to move the marble to the opposite side. Children took turns of one move each and could thus cooperate (first one subject would win, then the other) or compete (neither subject wins).

The results indicate that the younger children were more cooperative and thereby won more prizes over the course of the experiment. Older subjects, regardless of ethnic membership, engaged in "irrational competitive strategies" which reduced the net gain for all. Consistently, however, Mexican children were the most cooperative and Anglo-Americans the least, with Mexican-American children falling at an intermediate point.

These findings support the observation that competition is highly rewarded in the United States. Accordingly, Anglo-American children acquire this value early in their socialization. Once acquired there appears to be a generalization of the competitive strategy to situations in which it is nonadaptive. This is important because the findings show that Mexican-American children are caught between two cultural orientations: Mexican Americans do not cooperate as completely as the Mexicans, but do not compete as vigorously as the Anglo-Americans.

A recent study by Kagan and Madsen (1972), represents the third contribution in this series. The basic comparison was between urban Anglo-American and village Mexican children (ages 5–6 and 8–10). Children performed for prizes on a task which permitted them to be "competitive" (to maximize own gains) or to be "rivalrous" (to minimize gains of their opponent). Consistent with a pattern of previous findings, Anglo-American children were found to be more rivalrous than Mexican children and this rivalry increased with age. Moreover, it was found that Anglo-American males were more likely to engage in rivalrous behavior than their female counterparts. Sex differences in rivalry were not found among Mexican subjects.

Although Kagan and Madsen state that their studies are not designed to explain how such differences originate, they do speculate on a possible reason for the difference. They assert that if a rivalry response is functionally equivalent to a conflict or aggressive response, the source of the observed cultural differences may be attributable to differences in child-rearing practices. It has been shown, for instance, that Mexican and Anglo-American mothers are on opposite ends of the aggression scale (Minturn and Lambert 1964) and that Mexican mothers discourage peer aggression while American mothers encourage it.

A very adequate summary of this research is provided by Nelson and Kagan (1972). As a part of their review, they speculate further on the origin of the cultural difference in cooperation-competition which appears in their data. They state that:

> . . . rural Mexican mothers tend to reinforce their children noncontingently, rewarding them whether they succeed or fail, whereas Anglo American mothers tend to reinforce their children as a rigid function of the child's achievement. Rural Mexican children may learn that what they get is not a function of what they do; urban Anglo American children may learn that what they get is strictly a function of what they do. [p. 91]

Although such a hypothesis may ultimately have some validity and provide insight into such complex questions as those posed by cross-cultural research on cooperation-competition, no substantive data have yet been provided to support the hypothesis that there is a difference in how Mexican and American mothers reinforce their children.

McClintock (in press) presents data supportive of the findings reported above. He studied "Maximizing Difference Game" behavior of 108 Mexican-American and 108 Anglo-American subjects to explore possible effects of culture and grade upon competition and cooperation. He defines a "cooperative choice" as one in which there is maximum gain for self and other, and a "competitive response" as one which impedes the gain of the other. The results confirm earlier studies in showing that Anglo-American children are more competitive than Mexican-American children and that this competitiveness increases with both age of the subject and number of trials (i.e., competitiveness is acquired).

McClintock interprets his results in terms of a social-motive hypothesis, which asserts that perhaps American primary schools both shape and utilize competitive motives to promote and reward academic achievement and performance. Moreover, it may be that the Mexican-American child is out of phase with the educational system of the majority culture. If this is so, McClintock offers several alternatives for the society concerned with improving the effectiveness of its educational programs:

- It may establish separate institutions or programs that effectively take into account the normative rate of development of social motives of minority children.
- It may attempt to influence the development of the motivational orientations of minority children to correspond with the majority and maintain those educational programs designed to serve such motives.

- It may attempt to modify the motivational orientations of the majority to correspond to the minority and revise its educational programs accordingly.

An examination of these alternatives indicates that the second has not been successful, and it is highly unlikely that the third would happen. The establishment of parallel educational systems has been attempted on a limited scale (see Ramirez 1972), but numerous difficulties immediately appear. For instance, financing of such a venture poses overwhelming complexities involving both private and governmental funding agencies. Another solution has been advanced by Casteñeda, Ramirez, and Herold (1972). These authors propose an educational system based on *cultural democracy*. Such a system would allow *all* children to remain identified with the cognitive and life styles of their own ethnic group, while at the same time adopting mainstream American values and life styles. A more detailed analysis of their work appears in the chapter on academic performance.

McClintock concludes with several cautious remarks about his findings and interpretation which merit attention here. First, neither socioeconomic status nor individual intelligence was controlled in his study, and either one or both may be contributory factors in the obtained results. A second problem revolves around the difficulty of establishing commonality in process and measurement in cross-cultural research. And, finally, there is the question of intragroup variability and the overlap between groups. The importance of this latter remark is best summarized by McClintock who states:

> Failure to recognize variability often leads to simplified assertions that contribute to stereotyping of the attributes or the behaviors of members of groups. [In press]

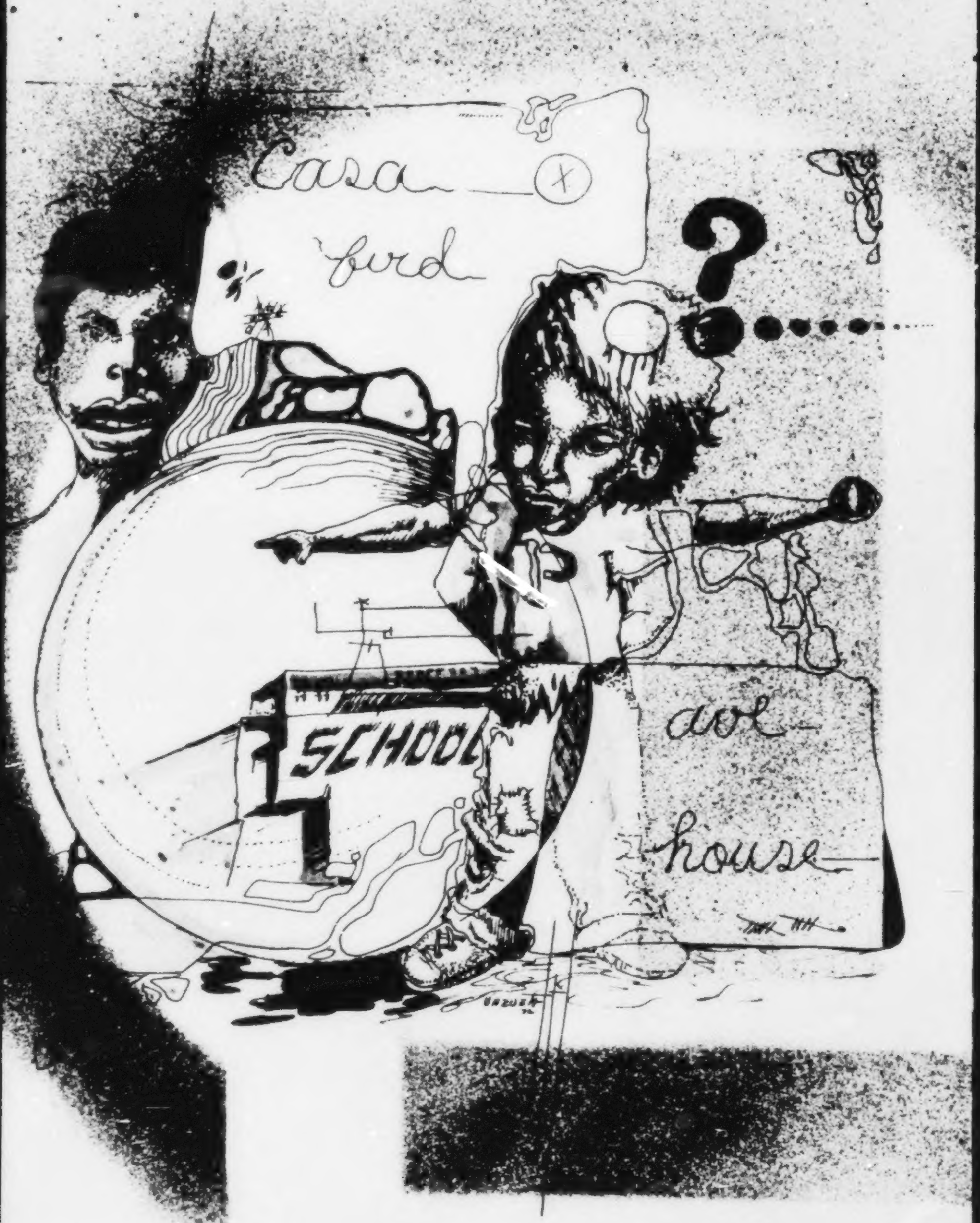
Future Needs and Recommendations

Although the number of articles reviewed in this chapter is limited, the importance of this area of research merits the attention given it here. As we observed in the introductory remarks of this chapter, the question of cooperation-competition among the SSSS bears on a number of topics in this review.

In many descriptive studies of the SSSS numerous references are made to their lack of competitive spirit and passivity. On the basis of the literature reported here, it would be a mistake to assume that the SSSS are benign, cooperative, compliant, or passive. The literature clearly indicates that urban Mexican Americans are more competitive than rural Mexicans, competitiveness can be modified by instructional sets, Mexican-American children become more competitive with age, and competitiveness is learned. The issue is one of degree. Another factor which limits generalization is the fact that as yet only Mexican-American school children have been studied. How would urban Puerto Rican children fare or other SSSS respond to similar tasks?

Another issue concerns the generalizability of findings from the "games" employed in the studies reviewed. We may ask ourselves, for instance, how "cooperative" are SSSS children in a fiercely competitive game, such as soccer? Or, are these "cooperative" game behaviors observed among SSSS adults in other activities, such as business? What is needed is a thorough analysis of cooperative-competitive behavior among the SSSS. Such an analysis should focus on the cognitive and motivational consequences of such behavior for the SSSS. For example, Castañeda, Ramirez, and Herold (1972) suggest that educators should structure learning environments compatible with the life styles of minority children. Accordingly, if the SSSS do differ in cooperation-competition this should be acknowledged by educators and culturally sensitive programs instituted in the classroom.

This is an important area because cooperation and competition appear closely allied to competence, achievement, and success. This relationship is readily observed in games among children but almost certainly also holds true among adolescents in school and adults at work. For these reasons, we strongly urge research on cooperation and competition among older SSSS subjects in a wider variety of situations. Furthermore, we also recommend intense study of diverse "games," broadly defined to include work as well as play, which require differing strategies. Finally, we urge the cautious experimenter to control for variables known to correlate with cooperation and competition among the SSSS, such as socioeconomic status and degree of acculturation.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9

LANGUAGE — BILINGUALISM

Social and behavioral scientists have long recognized that language is one of the most significant variables in the study of different cultural groups. This is especially true in the case of the Spanish speaking, Spanish surnamed (SSSS) since this group is either monolingual — Spanish — or bilingual — Spanish and English. Without a thorough analysis of research on language use and function as well as bilingualism, such a review as this would not be complete.

The literature shows remarkable diversity of research questions posed and variety in methods employed. A variety of disciplines are represented (e.g., anthropology, linguistics, and psychology) and many different kinds of problems have been investigated. One element these studies share in common is their potential to contribute to the resolution of some of the problems besetting the SSSS.

The first study (Barker 1947) is a doctoral dissertation in anthropology designed to study the "social function of language." Barker, concerned with which language bilinguals prefer in various situations, presents a massive array of data; we shall comment only on that which is relevant to this review. His subjects were Mexican Americans living in Arizona; data collection involved casual observation, interviews collected by a colleague, and responses to a questionnaire. The author is Anglo-American and bilingual. Thus, he was able to participate unobtrusively in informal conversation and simultaneously "listen in." His major findings include a consistent relation between language choice and certain social variables. In "intimate or familial relations," his subjects spoke Spanish exclusively. The ex post facto explanation is that

Spanish for the Mexican American is the language of home and family. In school situations, one type of "formal relations," English is preferred. The rationale is that this language is associated with experiences in Anglo institutions. In "informal relations," Barker describes communication characterized by "shifting" from English to Spanish or vice versa, and "mixing" both English and Spanish. This probably occurs because the social aspects are less well-defined, i.e., it is neither a "family" nor "school" situation. English is the language of choice in "Anglo-Mexican relations," even when the Anglo is known to be Spanish-speaking. This event is explained on the basis that insiders tend to exclude outsiders, plus the consideration that among Mexican Americans in the Southwest, English fluency is an accomplishment. The author notes that recent immigrants from Mexico are exceptions to these observations.

It should be noted that this is the earliest study of language as a social phenomenon with a SSSS population. Since the work of Barker, few researchers have concerned themselves with how the SSSS must learn to adapt their language behavior to the social situations they find themselves in (e.g., in the classroom, at work, among friends). An exception to this is the work of Fishman (1970) and Gumperz (1970) who in a series of studies have examined the sociolinguistic aspects of language of bilinguals, including Puerto Ricans. This research is not examined in greater depth because it lies beyond the guidelines of this review, but the reader should be informed of its existence.

A related series of three studies were done by Young and his colleagues (Young and Saegert 1966, Young and Webber 1967, and Young and Navar 1968). These deal with several different types of problems from verbal learning research and are published in psychological journals. Before citing each study and identifying its unique contributions, one important point must be emphasized. In a number of different experimental designs, it was consistently found that word lists in Spanish are more difficult to learn than lists in English for subjects who are fluent in both languages. This relationship held despite numerous attempts to make lists in both languages as comparable as possible. For example, Spanish word lists were translated into English and English lists were translated into

Spanish. Language of administration was counterbalanced, of course, to reduce possible order effects. Furthermore, there were variations in length and number of lists and differences between groups of subjects; and various methods of learning were used. This point is critical since numerous workers, as we have seen, assume that accurate translations of tests of achievement, intelligence, and personality are as valid in Spanish for bilingual subjects as they were for the original monolingual English-speaking normative group.

A second major point emerging from the Young studies is difficult to summarize succinctly since the findings themselves are contradictory. Basically, two studies (Young and Saegert 1966 and Young and Webber 1967) find that word associations acquired within one language (e.g., memorizing a list in English) can facilitate (i.e., positive transfer) or interfere (i.e., negative transfer) with the acquisition of new associations in a second language (e.g., memorizing a list in Spanish). The most elaborate of the three studies (Young and Navar 1968) is a replication of earlier work but with dominance of language as a major variable. They report that

> Forgetting in one language occurs as a function of associations formed in another language. In addition, language dominance does not appear to be related to the amount of forgetting. [p. 113]

The authors conclude, "the two languages of a bilingual are interdependent and not independent" (p. 115).

A third point concerning the Young studies and several other studies which follow will be made here. In the concluding portion of this chapter we shall elaborate upon this point, particularly as it relates to future research. These studies rely upon what appears to be an excessively casual method of measuring bilingualism. One finds that self-ratings or questionnaires are very often used to measure language fluency and even dominance, when better methods are available. One exception (Palmer 1972), described in detail below, combines the self-rating approach with a reaction-time measure.

This problem is particularly apparent in a study by Riegel, Ramsey, and Riegel (1967). In this study, the performances of 48 bilingual subjects were compared on a series of very complicated word-association tasks. Half of these subjects were native speakers of English with Spanish as their second language (mostly American-born Spanish-major undergraduates); and the other 24 subjects were native speakers of Spanish with English as the second language (mostly foreign-born graduate students and their wives). Each subject rated his own proficiency in the second language, and both groups were considered approximately equivalent on the basis of self-ratings which yield similar group means. The problem with this technique is that a college junior with a straight "A" average in five semesters of Spanish might rate himself as "very proficient" since he can translate *Don Quixote* flawlessly, especially compared to fellow students. On the other hand, the native speaker of Spanish has a very different norm group. He is attending a university in another country and competing at the graduate level in a foreign language. His self-rating of "average" may reflect a higher degree of fluency than the native speaker of English who evaluates himself as "very proficient." We shall return to this topic in formulating recommendations for future research.

Results of Riegel, Ramsey, and Riegel's (1967) study which are relevant to this review are limited. First, there was a higher frequency of "blanks" (inability to respond on the word-association task) in the second language. Such a finding is predictable, of course, on the basis of the assumption that subjects are more fluent in their native language than on a later acquired one. Second, students of Spanish drew more "blanks" than students of English. Since native speakers of Spanish had more "blanks" than native speakers of English, however, the authors assume the two languages are somehow qualitatively different in some undefined way (see discussion, p. 538). Once again, we are obliged to suggest that the two groups might differ in terms of proficiency in the acquired language, even though group means based on self-rating are equal.

A study by Berney, Cooper, and Fishman (1968) compared the verbal performance in both English and Spanish of island and mainland Puerto Ricans who were bilingual. The two tasks involved "word naming" and "continuous word association" in five content areas: family, neighborhood, religion, education, and work. These techniques were administered primarily to obtain an estimate of relative bilingual fluency in each domain by comparing the number of words produced in each language. For any domain, a translation-equivalent pair was counted for a respondent when an English response was identical to the English translation of one of his Spanish responses. The number of translation-equivalent pairs in each domain was counted for each respondent and expressed as a ratio to the total number of words observed in the weaker language for that domain. Obviously then, the higher the number of such pairs, the greater the degree of interdependence between the two languages among these bilingual subjects.

The results indicated significantly larger translation-equivalent ratios for the island Puerto Rican sample on both tasks. It was also shown that on both tasks and for both groups the domains of family and neighborhood had the lowest translation-equivalent ratios, while the domain of education showed the highest. Thus, it appears that the least public domains — those where English is least likely to impinge — were the ones which exhibited the greatest semantic independence.

Overall, these findings cannot be explained in terms of the greater Spanish dominance of the Island Puerto Rican sample, but rather in terms of the compound-coordinate distinction (Ervin and Osgood 1954). That is, the bilingualism of the island Puerto Rican group was more likely to have been school based (and hence compound) than that of the mainland Puerto Rican group. Thus, the finding of greater semantic interdependence in the former group is consistent with the finding of greater semantic independence in those domains — the family and the neighborhood — in which the compound use or compound acquisition of English would be least likely.

A study by Fishman and Cooper (1969) is important primarily because it indicates that sophisticated measurement of bilingualism is technologically feasible. The authors spent an estimated 2 to 4 hours with each of 48 Puerto Ricans who were 13 years of age or older. A partial listing of their measures serves to make the point. The *listening comprehension* task exposed subjects to an audio-tape English-Spanish conversation ranging across a variety of topics. After two exposures, subjects were required to answer questions concerning topics which had been conducted exclusively in English, exclusively in Spanish, or both. At a more subtle level of measurement, subjects were required to make inferences concerning social relationships between the two speakers, the appropriateness of their choice of one language over another to discuss a given topic, and others. A second task was *word naming.* Subjects were given 1 minute to provide as many responses as possible, in either English or Spanish, in five domains (family, neighborhood, religion, education, and work). There are other measures of bilingualism cited, but the interested reader is referred to the original paper (Fishman and Cooper 1969).

Fishman and Cooper's method makes it possible to predict accurately degree of bilingualism — at least among this group of New Jersey Puerto Ricans — from data relatively easy to obtain. Correlation coefficients are larger than 0.8 between the criterion and *census data* such as "language used most often at home," or *observational data* such as "accented speech." The lesson is clearly recognized by the authors. After carefully controlled pilot studies, sophisticated researchers could probably identify predictor variables highly correlated with bilingual fluency among a variety of SSSS groups. Large-scale research could then be conducted among bilinguals without the expense of extensive assessment of each individual subject.

A study by Dixon, Garcia-Esteve, and Sigvartsen (1968) represents an interface between linguistics and psychology. Hypotheses were derived from some earlier work of Diaz-Guerrero conducted with Mexican subjects. Diaz-Guerrero proposed that Latins tend to procrastinate (e.g., the *mañana* concept) and that they perceive themselves as relatively deficient in personal autonomy (e.g., belief in *el destino* and *que será será*). To test their hypotheses, Dixon, Garcia-Esteve, and Sigvartsen selected 201 Spanish-speaking Puerto Rican students at the University of Puerto Rico and compared them with 162 English-speaking students from the University of Florida. Language usage and responses to several personality scales were intercorrelated. Among 264 comparisons, not a single correlation achieved statistical significance. The conclusion is obvious. This study fails to support the contention of a relationship between language and selected personality variables presumably related to Spanish-speaking cultures. Other findings are reported, but they are of marginal relevance to this review.

The study by Rapier (1968) is highly significant and, therefore, warrants extended discussion. The orignal impetus for the research is credited to Jensen (1961). Jensen noted that low-IQ Mexican-American children performed better than similar low-IQ Anglo-American children on a series of learning tasks which did not depend upon previous learning. Jensen speculated at the time that Mexican-American children might lack the language skill to facilitate *verbal mediation* between previous and current learning experiences.

The Rapier study, then, consists of two experiments designed to answer the questions of whether Mexican-American children were deficient in verbal mediation, and if so, whether they could profit from training. Rapier selected a pool of children who were all from the lower socioeconomic class, but who were evenly divided along these dimensions: half were Mexican American and spoke Spanish at home and half were Anglos who spoke only English, half were third graders and half were fourth graders, half had IQ scores between 70–89 and half between 90–109. In the first experiment, subjects were required to learn to discriminate between blocks which varied along both size and color dimensions. In a counterbalanced experimental design, half of the Mexican-American children and half of the Anglo subjects were reinforced for size and the remainder for color. Under "reversal shift" conditions, subjects who learned a size discrimination (e.g., "larger") were now reinforced along the same dimension (e.g., "smaller"). Likewise, subjects who learned color discrimination (e.g., "lighter") were now reinforced along the same dimension (e.g., "darker"). Under "nonreversal shift conditions," subjects reinforced for size were subsequently "shifted" to color and subjects reinforced for color were "shifted" to size. Following Kendler and Kendler (1962), the hypothesis is that "reversal shifts" are easier to learn than "nonreversal shifts" for children who possess the fluency to use verbal mediating responses. Although the results just barely failed to achieve statistical significance, the Mexican-American children as a group made twice as many errors to criterion as Anglo children. Furthermore, the performance of Mexican-American subjects was approximately equivalent, regardless of level of intellectual functioning (IQ = 70–89 had 12.6 errors, IQ = 90–109 had 11.0 errors). The *implication* of these statistically nonsignificant results is that Mexican-American children are deficient in the linguistic skills which underlie verbal mediation. The author suggests that her results warrant additional research, and the reviewers concur.

The second experiment represents a logical extension of the former, considering the hypotheses under test. Subjects were required to learn three lists of 12 pairs of pictures of common objects. Described schematically, list one contained pairs A-B, list two had pairs B-C, and list three had pairs A-C. Using another elegant counterbalanced design, Rapier tested the hypothesis that young children, who could exploit verbal mediation and practice, would find list A-C easier to learn. Although learning based on verbal mediation was apparent among both groups of children, the finding of major significance is that "dull" Mexican Americans (IQ 70–89) performed as well as Anglos of "average" IQ (90–109). The inference is clear, as Rapier recognized, the so-called "learning disability" characteristic of Mexican-American children may be due to a relative deficit in the number of verbal associations they can evoke in new learning situations.

In a test of Piaget's theory of cognitive development, Feldman and Shen (1971) generate data bearing indirectly upon bilingualism. Their point is that older research indicated that monolinguals were superior to bilinguals in cognitive tasks, but more recent work casts doubt on this conclusion. Their prediction is that bilinguals will be *superior* to monolinguals (as middle-class children are to lower class children) because both the bilinguals and the middle-class subjects learn dual language codes; that is, they possess more than one label for a given object.

To test this hypothesis, a group of Head Start children (ages 4 to 6) were selected to participate in the study. Half were bilingual and half were monolingual. Once again, it is sad to report, the issue of determining bilingualism was decided in a somewhat capricious fashion. The classroom teacher and the language teacher independently evaluated each child. As the authors report, however, these two judges were sometimes in perfect disagreement concerning whether a given child was bilingual or monolingual. The tasks selected involved three different types of cognitive ability. One task involved *object constancy*, the ability to recognize an object after its shape had been altered partially. The second included a variety of *naming* tasks using common names for objects (e.g., "cup"), using nonsense labels (e.g., "wug"), and then switching to associated names (e.g., "plate"). The third task required children to demonstrate the ability to *construct sentences* using three names. Basically, the author's predictions were confirmed. Bilingual children were superior to the monolinguals on all three tasks as shown in table 9–1. Of relevance to this review is the conclusion of the authors that bilingual subjects can outperform monolinguals on cognitive tasks which involve "comprehension" and "production." These data and conclusions have critical implications for the SSSS considering the consistent finding that bilingual subjects perform poorly on tests of intellectual ability and academic achievement.

Table 9–1. Percent correct responses on three tasks: Object constancy, naming, and uses of names in sentences in monolingual vs. bilingual subjects.[1]

Task	Bilinguals Percent correct	Monolinguals Percent correct
Object constancy	94.7	84.0
Object relabeling	80.7	69.1
Relations	54.1	35.6

[1] Adapted from Feldman and Shen (1971).

A study by Palmer (1972) is significant for several reasons. First, as mentioned briefly above, degrees of bilingualism are assessed using multivariate measurements. In addition to the overused self-rating scale, the author combines a *reaction-time* measure of the latency required to name objects in English and Spanish. The second reason the study is important is the set of findings cited below.

Palmer defines language as having the function, among others, of providing a set of rules to facilitate the categorization of objects. Pertaining to the bilingual, Palmer states:

> . . . a person who has varying degrees of skill in two languages, needs categories and the rules for joining them for both of his languages. Many times the categories and the rules overlap; but many times they do not, which necessitates the learning of two independent linguistic systems for the bilingual. He must learn appropriate categories in each language, and he must learn the cues useful in placing objects appropriately in his two systems of categories. When one of these systems infringes upon the other, "interference" may result. [p. 160]

To test this prediction, Palmer constructed a series of categorical word lists in English, Spanish, and mixed (English-Spanish). Uncategorized word lists were also prepared in English, Spanish, and mixed. Subjects were school children ranging from the fifth to the eighth grade. Four levels of language ability were represented: strong English, strong Spanish, balanced bilingual, and monolingual-English. Each subject listened to the six lists and was allowed 2 minutes of free recall. Items in each list were randomized and language order was counterbalanced across subjects. Analyses of covariance were used to remove the effects of socioeconomic class, vocabulary level, and age of children. The dependent variable was recall of stimuli from the lists. Results indicated that the monolingual subjects had the *poorest* average recall in English compared to all other language groups. These results are shown in table 9–2. With this unexpected exception, no relationship was found between language and recall. These data appear to refute the contention that dual-language ability somehow "interferes" with cognitive processes based on immediate recall.

Table 9–2. Average recall in three language situations under categorized conditions.[1]

	Language Situation		
Group	English	Spanish	Mixed
Monolingual English	11.3	1.7	6.3
Strong English	13.2	7.0	6.8
Strong Spanish	16.7	12.7	10.9
Balanced	15.4	14.4	11.2

[1] Adapted from Palmer (1971).

Another recent study (Heras and Nelson 1972) sought to investigate retention of semantic, syntactic, and language information by young bilingual children. In this study, bilingual 5-year-olds were read stories in English and Spanish, and by using variants of the second sentence in each story recognition memory was tested. Results indicated that the bilingual children successfully coded and remembered sentences in terms of meaning but rapidly forgot details of syntactic form. In addition, children were asked to identify the language of the third sentence in each story. Interestingly, coding by language (Spanish or English) for the third sentence was forgotten if followed by material in the alternate language.

In all the findings it was indicated that sentence meaning was coded, and retained successfully, in a manner which was not dependent upon original syntactic form or original language. The significance of this research lies in the fact that this study represents the first attempt to assess memory storage processes in the bilingual child. From this kind of investigation many of the complexities involved in the interdependency of linguistic systems may ultimately be better understood.

Future Needs and Recommendations

At the most global level of analysis, it is obviously critical to study the verbal behavior of the SSSS because the bilingual factor sometimes obscures our understanding of significant psychological processes. For example, there are numerous studies, as we have seen in earlier chapters of this review, showing that the SSSS perform below Anglo norms on tests of intelligence and academic achievement. In a country biased against bilingualism it is not surprising to encounter the frequent argument that bilingualism somehow "interferes" with cognition. Several recent studies, however, cast serious doubt on the validity of this assumption despite its "reasonable," common sense appeal. To the contrary, there is a growing body of literature suggesting that bilingual skill is somehow related to *superior* cognitive processes. Obviously, this is the type of assumption that must be studied in depth with all the resources of the scientific method.

With regard to the identification of more specific research problems, perhaps the starting point should be a thorough examination of the two-language acquisition of SSSS children. That is, we know very little about the specifics of language acquisition of bilingual children. What is needed are longitudinal studies of how these children acquire the lexicon and grammatical structures of their two languages. Further, we need to ask questions of psycholinguists concerning the optimal age and method of how to teach a second language to children.

From this we need to know more about the role of *verbal mediation* in the learning behavior of bilingual children. Are the processes the same as among the monolingual or are they somehow different? Are there inhibitory or facilitating factors? And if so, what conditions bring them into play? Related to this set of questions are inquiries into the memory processes of bilinguals. Numerous researchers working with bilinguals of other cultural groups (e.g., French-English bilinguals) have discussed memory processing in terms of separate and/or shared memory storage processes (e.g., Kolers 1966, Macnamara 1967, and Macnamara and Kushnir 1971). Aside from the work of Young and his associates, sophisticated verbal-learning research with the SSSS is noticeably absent in the literature. With the growing call for bilingual educational programs in the schools, research asking the questions posed above is a must. The outcome of such studies may be improved curriculum materials and teaching methods.

Related questions should be raised concerning the *interdependence* of language and language use among the bilinguals. Barker (1946) has shown, for example, that the SSSS tend to speak Spanish in situations involving family, home, and neighborhood, but prefer English at school or when in contact with other Anglo institutions. What we are much less sure of is the influence of this kind of language preference, or of factors such as "switching" and "mixing," upon personality and cognition. These are questions which can only be answered by research. It was pointed out earlier that such investigations of a sociolinguistic nature are underway (e.g., Fishman 1970 and Gumperz 1970). What is clear, though, is that such research must be encouraged.

This brings us to the crucial question of the operational definition of bilingualism. As a general rule, we would propose that the use of self-ratings or teacher evaluations as measures of language dominance, fluency, or preference appears excessively gross. Thus far, multivariate measurements of language skill seem almost mandatory, although the approach of pilot research to identify predictor variables appears to hold great promise (Fishman and Cooper 1969).

In this general context, the researcher must remain alert to the consistent finding that translations of word stimuli are not necessarily "equivalent" in terms of ease of learning. At this point, we are uncertain whether Spanish word lists in and of themselves are more difficult to learn, or whether dual mastery of Spanish and English somehow retards learning of Spanish word lists. The recommendation which emerges is that whenever "equivalence" of translations is part of a research design, independent normative data must be gathered. Technically accurate translations are no guarantee that "equivalence" has been achieved.

One final comment concerning future research: The complexity of verbal behavior among the SSSS is so obvious and extreme that some kind of "special effort" seems called for. One recommendation the reviewers support is the encouragement of multidisciplinary research. The advantage is that alternative perspectives of the same problem may yield more significant insights than a more traditional research approach.

10

SUMMARY & CONCLUSION

This is the concluding section of a critical analysis of the available literature pertaining to the mental health of the Spanish speaking, Spanish surnamed (SSSS). There is no purpose to be served by repeating here the numerous problems we have identified nor the many research efforts and social-action programs we have supported. These already appear in detail at the conclusion of each section. As a more profitable alternative, we have elected to assess the relative success of the project and to identify some of the difficulties we have encountered. We also intend to identify in the broadest terms possible some of the issues of major significance in this area of research.

The first set of comments pertains to the literature itself. As we have seen, there is a severe paucity of mental health research on the SSSS. What little there is, unfortunately, is often of execrable quality. We have perused studies based on unwarranted assumptions; we have encountered the questionable use of statistical tests; we have complained of the absence of adequate controls or adequate matching of subjects and other indices of low quality research. In many instances, we have recommended caution in accepting conclusions presented, or we have disputed interpretations made.

The literature also merits criticism since inferior quality results in contradictory or incompatible findings. One solution in this situation is concerted investigation of a single set of problems—i.e., programmatic research. Unfortunately, there are very few instances of this approach. As stated many times, the review leads to a recommendation of support for *programs* of research, rather than for isolated projects.

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Now let's evaluate the adequacy of the literature search itself. We have located and included work from most of the social-science disciplines which has appeared in a variety of journals. In addition to research articles, we have included essays on related topics and relevant chapters from books. We have cited the major books and textbooks, but have reviewed none in depth. Although the total number of references comes to well over 400 (see Padilla and Aranda, 1973) we are convinced there is almost certainly some additional material available we have not yet located or have excluded. For example, we have included very little unpublished work, no newspaper or news magazine articles, and no speeches. We do believe, however, we have located the vast majority of articles which report empirical data and almost all of those appearing in scientific journals.

We shall now comment on the target population. Our literature search has focused on *all* SSSS groups, but we discovered that most of the research is on Mexican Americans, a little on Puerto Ricans, and *almost none* on any other SSSS group. Yet, as a few relevant studies have shown, one may not validly generalize from findings based on the Mexican Americans to the Puerto Ricans, nor vice versa. It thus goes without saying that one recommendation emerging from the project is for research with all SSSS groups, not just those convenient for researchers.

The project has identified a number of problems which continue to be unresolved and/or only dimly understood even after adequate experimental research. In several instances, we have recommended specific modifications of research strategy as a potential solution. To be specific, we have endorsed the use of *longitudinal* research methods with some problems and have suggested a *multidisciplinary* approach with others.

The literature identifies a number of problems which plague the SSSS. To mention only those social problems which appear most directly related to mental health, we find elevated rates of juvenile delinquency, alcohol and drug abuse, and incarceration. Yet, our search of the literature revealed only a few scattered references to programs emphasizing prevention or rehabilitation. Accordingly, we strongly recommend support for programs of social action and research.

At this point we shall explore one problem area in depth as a means of illustrating how incredibly intricate these problems can be. We shall also sketch out a proposed methodology to document the need for longitudinal, multidisciplinary programmatic research. The point has been documented thoroughly that the SSSS are routinely subjected to a relatively greater degree of stress than the majority group, in part because of their ethnic-group membership and poverty (see especially chapter 7 on prejudice and discrimination). We know that people experiencing protracted and intense stress will generally decompensate somehow more often than others who are relatively stress-free. Specifically, we are predicting that people who experience diminished opportunity through discrimination and who are subjected to the stress of the poverty cycle (as are the SSSS) will respond in some maladaptive, self-destructive, or escapist fashion. Given this situation, one might predict, for example, an increased rate of self-referral to mental health centers. But as we have seen, the reverse is true — the SSSS refer themselves for psychiatric treatment *less* often than base-rate population estimates would suggest. A second alternative response is to alleviate stress through alcohol and illegal drugs. Statistics gathered by police departments in the major southwestern cities reveal the SSSS are arrested more frequently than the general population for crimes associated with abuse of alcohol or drugs. Since, however, these data may reflect police harassment, at least in part, one should not infer that the SSSS are necessarily attempting to escape stress through excessive use of alcohol and drugs. The same confusing picture emerges when one studies suicide among the SSSS. Aranda and Padilla (1973) have reported a suicide rate of 5.5 per 100,000 among the SSSS in Santa Barbara County, Calif., a rate well below the national average.

The point is that the SSSS are subjected to enormous stress but do not appear to be responding with expected behaviors. They are not actively seeking treatment for anxiety, they do not escape through suicide, and whether they are using alcohol and drugs excessively is open to question. First, we need solid and cautious demographic surveys at the national level to determine unequivocally if these base-rate estimates are accurate. If we discover that the SSSS are responding maladaptively (as one would anticipate) then appropriate — probably innovative — stress-reduction programs must be created. On the other hand, suppose available data accurately reflect a situation in which the SSSS experience extreme stress but because of cultural supports respond adaptively rather than maladaptively. Such a finding would warrant an intensive investigation because of its far-reaching implications that the SSSS have somehow acquired skill in resisting stress. In this case, one would recommend research aiming at a specific answer to the question of how this is done. Is it because of the extended family of the SSSS which offers support that other subcultures lack (see chapter 3)? Could the ability to resist stress represent some type of cognitive skill not yet completely understood? Could linguistic skill based on bilingualism be a factor (see chapter 5)? Could game-playing behavior underlie this skill (see chapter 8)? These questions represent only the most obvious directions future research might take to determine how some SSSS maintain an adaptive style of behavior even when bombarded by stress.

We shall now turn to consideration of the delivery of services to the SSSS. In many chapters, it was noted that many people providing services are ignorant of the language, customs, and culture of the SSSS. We have found, for example, a situation in which mental health professionals are unable to benefit SSSS patients because of inaccurate preconceptions concerning the target population (see chapters 2 and 4). We have encountered educators making equally serious errors, such as underestimating intellectual ability and academic prowess (see chapters 5 and 6). Although firm evidence is difficult to obtain for obvious reasons, news reports appear in the popular press with alarming consistency of police harassment of the SSSS. Finally, it is sad to report, there are people delivering services to the SSSS who appear consciously motivated to play the role of the oppressor (see chapter 7).

The preceding analysis indicates that a number of people are delivering inadequate services to the SSSS because they know so little about the target population. The resolution of this problem lies in the dissemination and use of information and, if possible, the modification of prejudicial attitudes. We have proposed that materials be compiled, or created if necessary, which describe the sociocultural heritage of the SSSS. One might draw upon fiction, drama, newspaper articles, films, TV shows, and almost any other source of information. The intended audience, of course, is anyone dealing with the SSSS regardless of professional label or level of support funding (County, State or Federal). It is now being suggested for the first time that there may be some benefit to be derived from exposing legislators at all levels of governmental structure to these educational materials. In other words, better understanding of "the problem" may result in more efficient solutions.

While the advantages of transmitting information about the SSSS to the non-SSSS are obvious, it seems very likely that there may be some benefit to transmitting some of this information to the SSSS themselves. This recommendation is based on the assumption that self-esteem and pride-in-heritage are two variables associated with achievement and competence. Furthermore, that esteem and pride can be enhanced to some extent by positive and concrete information concerning one's antecedents. A related recommendation is much more subtle and therefore more difficult to implement. We are recommending the creation of programs designed to enhance awareness of self. Above, we recommended teaching the SSSS about their heritage. Now we are suggesting use of this knowledge to increase personal pride. Simultaneously, we suggest implementation of programs among the SSSS based on the model of "intense encounter" or "sensitivity training" to "expand consciousness" about shared problems and possible solutions. For example, it seems possible to use these techniques to enhance self-awareness and to identify sources of frustration among the SSSS; political impotence certainly can be the focus of such a program. Once identified, information might be shared as to how to resolve this problem. There may be voter-registration drives, dissemination of information on lobbying practices, publicizing the voting records of local legislators, and other political maneuvers. This combination of self-awareness and factual information relevant to a given situation can be extremely effective in helping the SSSS to resolve their own problems.

To return to the topic of improving quality of research, we urge careful and adequate control of significant variables. To cite only one instance, a number of studies demonstrate correlation between socioeconomic status and performance on tests of achievement or in the classroom. Yet despite this knowledge, study after study investigates academic achievement with only minimal attention paid to the control of this variable. In some instances, authors acknowledge the need to control such a variable and then proceed to do so in the most casual fashion.

The related problem of adequate *measurement* of dependent variables is even more critical. The most blatant abuse of careful measurement is with respect to bilingualism. As we have seen, subjects have been assigned to either bilingual or multilingual groups on the basis of the combined judgment of two observers, even when both were in *perfect disagreement*. The most common error is exclusive reliance upon self-ratings or the use of brief, casual interviews to determine bilingualism. This is really inexcusable since more valid methods of measurement are available, not all of which require extensive investments of the examiner's time. Adequate control of bilingualism in research among the SSSS is critical because the variable is poorly understood, yet appears to correlate with a number of other significant factors.

In a number of instances, we have identified issues which can be grasped or problems which can be solved only by someone with a good understanding of the SSSS cultures. To do this requires programs which encourage the SSSS to continue their formal education and to seek training or degrees where they can provide maximum help for their people. In the mental health field, we need to encourage the SSSS to become clinical and counseling psychologists, psychiatrists, psychiatric nurses, social workers, and aides. Very serious consideration must be given to the creation of training programs for SSSS to function at the paraprofessional level. The same recommendations apply in the field of education. Similar types of programs are needed to increase the number of teachers, principals, and superintendents. More details of these and other recommendations appear in the conclusions of more than one section.

One final comment. Throughout this review, we have espoused adherence to the model of scientific investigation. It is our firm conviction that this method offers the best chance of generating data to solve the social problems which are retarding continued growth of our people in their country. It should be clearly understood, however, that our conviction is equally firm that important information can accomplish only limited social good if stored in musty archives available to scholars of dispassionate interest. In terms of a positive recommendation, we are urging once again that whatever knowledge is created by future research be shared by the people involved in social change. More specifically, we are urging the dissemination of relevant information to applied practitioners working in service settings. The goal, of course, is to help these practitioners exercise more discerning judgment in guiding the SSSS toward the solution of their many problems.

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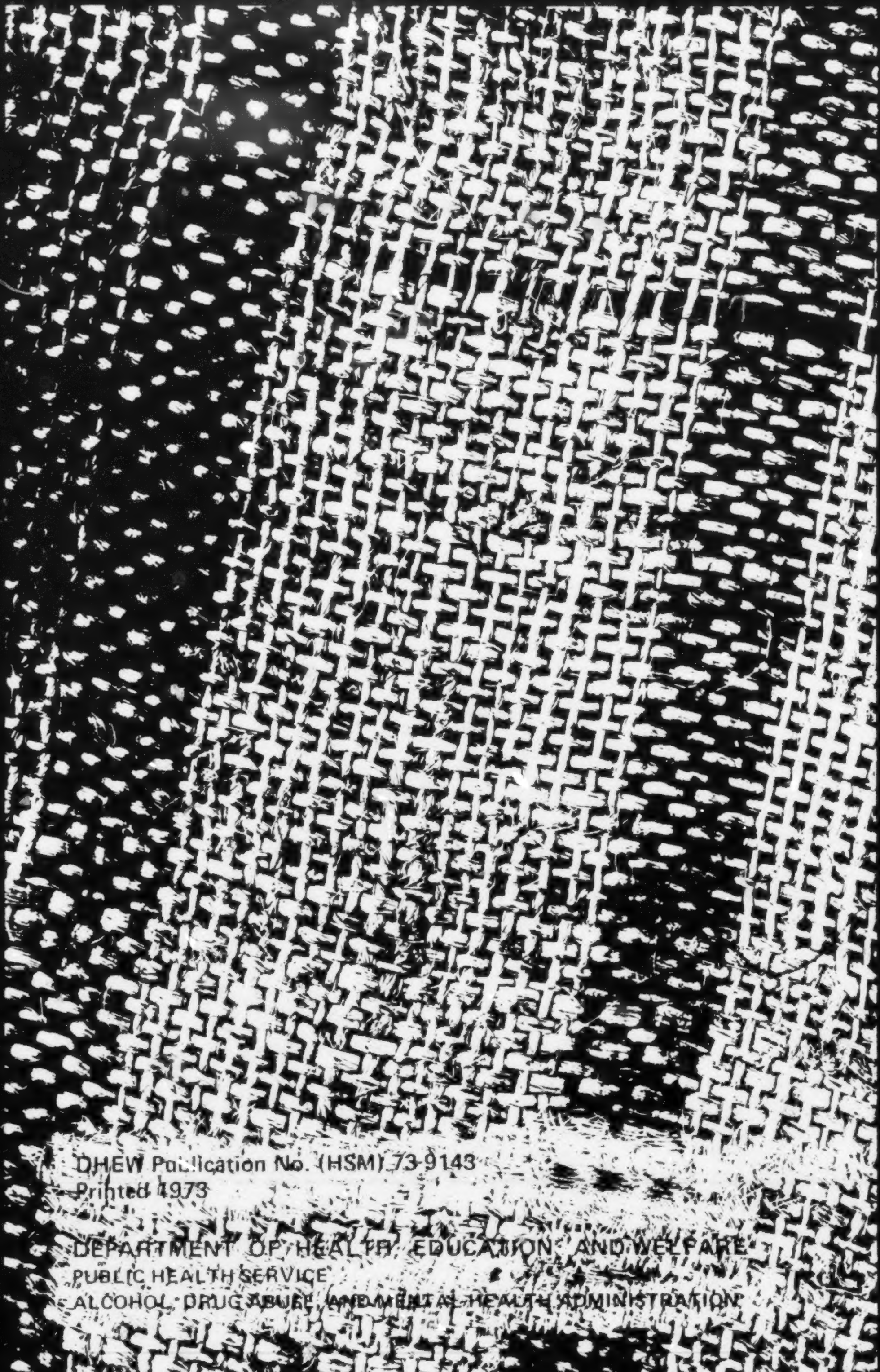
The Artist

The art on this volume's inside pages was done by a young Chicano painter, Manuel Unzueta. Born in Juarez, Mexico, Unzueta moved to California in his teens. Many of his paintings, which have been exhibited in California galleries, reflect the merging and often conflicting values of Mexico and the United States.



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